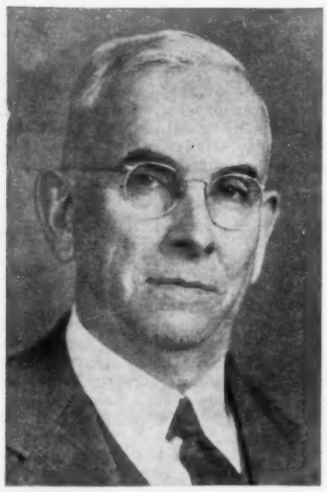
FEEDSTUFFS®

★ A WEEKLY NEWSPAPER ★

FOR THE FEED MANUFACTURER, JOBBER, BROKER and DEALER

Volume 30—Number 15 | APRIL 12, 1958 | 1 Year $4, 2 Years $7



Dr. Frank B. Morrison

Dr. Frank B. Morrison, "Feeds and Feeding" Author, Dies at 70

ATLANTIC, IOWA—Dr. Frank B. Morrison; 70, widely known author of the book "Feeds and Feeding," died here April 7 of a coronary while driving to Clinton, Iowa, to visit his son.

Dr. Morrison, a world authority on livestock nutrition, was head of the animal husbandry department of Cornell University, Ithaca, N.Y., for 17 years. He was a Cornell emeritus professor at the time of his death.

He had retired from the university in 1955, but was still active, and had recently been engaged in a series of speaking engagements in Oklahoma and Colorado. He and his wife had set out by car from Sarasota, Fla., about a month ago for the speaking engagements.

Dr. Morrison died as he was passing through Atlantic, Iowa. He and Mrs. Morrison were en route to Clinton to visit Dr. Spencer Morrison, formerly with Pillsbury Mills, Inc., and now director of an agricultural consulting service and also active in publication of "Feeds and Feeding."

Since his retirement, Dr. Morrison

(Turn to F. B. MORRISON, page 89)

Continued Generally Good Demand for Broilers Noted

SALISBURY, MD. — So far this year, the number of broilers marketed in the nation has been 9% ahead of last year. In spite of this, the market has been much better.

Last week in Delmarva, for example, the average price paid on the farm was 20.64¢ lb. Six months earlier the price was 17.18¢, and a year ago it was 20.17¢.

Looking at the national picture, the mid-month farm prices for broilers averaged 19.9, 20.3 and 21.5¢ in January, February and March, respectively, compared to 18.0, 19.4 and 19.8¢ in these year-earlier months. This strength occurred despite sharply increased supplies compared with the first quarter of 1957.

(Meanwhile, later price reports, for

(Turn to BROILERS, page 89)

Proposed Bill Would Affect Regulation of Truck Hauling

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON — Legislation now pending before Congress would have the effect of radically limiting the scope of the agricultural exemption for motor truck hauling from Interstate Commerce Commission regulations.

The bill, H.R. 5823, has been introduced in the House at the request of ICC, which has been highly critical of alleged abuses of the agricultural exemption.

Trade traffic experts say that if this measure is enacted, it will virtually kill the agricultural exemption.

The measure proposes that the agricultural exemption for farm products will apply only until such time or point of movement where the commodity first passes out of the actual possession and control of the producer.

According to traffic specialists, this would mean that interstate shipments of grain from the farm level or from country warehouses where grains have been stored by the farmer—if sold at either of these points for truck shipment—would not be entitled to the agricultural exemption from ICC control over rates and such other regulations as safety controls.

Shipments of grain which would fall under ICC regulation under the proposed amendment of the law would be those moved by for-hire motor vehicles in interstate commerce.

Sharply Critical

ICC officials have been sharply critical of the operation of the exemption provision, alleging that it is subject to abuses which they declare were not originally intended by Congress, and that the lower rates of for-hire carriers outside the ICC regulation are not reflected to the farm producer.

At a recent hearing of a House subcommittee on interstate commerce the ICC chairman, Howard Freas, stated that many of the agricultural exemption operations were primarily for the benefit of the processor or shipper and did not benefit the farmer.

At the same time, it was said, these unregulated rates were dislocating the distribution of freight to rail carriers, further impairing their earnings.

The proposed change in the Interstate Commerce Act, in Section 203 (B) (6), would have no effect on private truck operations nor on itinerant truckers who buy commodities for their own account and move the commodity as their own property for their own account.

However, the case would be differ-

(Turn to TRUCKS, page 85)

Panel Covers Contract Swine Growing at Illinois Meeting

URBANA, ILL.—Integration of the pig business was approached from several different viewpoints during a panel discussion of the topic at the recent Illinois Swine Growers Day, University of Illinois.

Presenting their views were Earl F. Crouse, Doane Agricultural Service, Inc., St. Louis; Dr. J. L. Krider, McMillen Feed Mills, Ft. Wayne, Ind.; Ben M. A. Smith, Hunter Packing Co., East St. Louis, Ill., and George Brauer, hog producer from Oakford, Ill.

In addition to the panel presentation, the day's program included swine feeding research reports presented by university staff men.

Presenting a producer's views on contract hog growing, Mr. Brauer said hog farming is rapidly moving toward more volume, higher efficiency and greater specialization, with or without contract production, but that contract production will cause the changes to occur faster and be more pronounced.

"Contract hog production will probably put the in-and-outers out of business. They won't be able to adjust their production because of the high

(Turn to SWINE GROWING, page 8)

Pet Food Institute Organized; New Group to Launch Publicity Program

CHICAGO—Pet Food Institute is the name of the new national trade association recently formed by manufacturers of both wet and dry dog foods. In a recent meeting of the board of directors, the by-laws of the institute were approved and plans for the first fiscal year were reviewed.

The Pet Food Institute plans to launch an extensive publicity and public relations program to promote the use of the industry's products and to create in the minds of the general public an increasingly favorable attitude toward commercially prepared pet foods.

While the institute membership now constitutes a considerable portion of the industry's dollar volume of sales, an intensive membership drive will be conducted to secure cooperation of a large number of dog food as well as cat food manufacturers who operate on either a regional or national basis, institute officials said.

According to an institute spokesman, numerous other activities will also be undertaken, and all members of the industry will be invited to participate in the first annual convention, which will be held next September in Chicago. News of the dates and location of the meeting will be forthcoming.

(Turn to PET FOOD, page 89)

PURINA REPORTS SALES RECORD

ST. LOUIS — The Ralston Purina Co. broke its all-time sales record in the month of March, President R. E. Rowland has announced. In the animal feed division, 406,043 tons of Purina Chows were sold during March, which is an all-time high during the company's 64-year history. New Purina Dog Chow also exceeded its best month by 5%. This product is on allotments because production cannot keep up with demand, Mr. Rowland said, and a new mill is being built in Cincinnati. The Ralston cereal division reported more cases of cereals sold than in any previous March. Mr. Rowland, in a message to Purina employees, urged them to "forget talk about recession and continue to break records."

FEEDSTUFFS *Features This Week*

FEEDING GEESE: The feeding of geese and the potentiality of geese as a source of poultry meat are discussed on **page 18.**

CHANGING AGRICULTURE: Current and prospective changes in agriculture and how these changes will affect the feed business are outlined on **page 30.**

PNEUMATIC CONVEYING: An article on pneumatic conveying appears on **page 44.**

NEW MILL: How a "model mill" was planned and constructed to replace one destroyed by fire is described **on page 52.**

FEED TESTS: A new feed mill operation in Texas includes cattle-feeding demonstrations to back sales efforts—**page 70.**

— REGULAR FEATURES —

Convention Calendar	20	Feed Service Bulletin Board	64
Joe Brooks	26	Putting Research to Work	66
Worth Looking Into	58	Classified Ads	82
Up or Down	62	Feed Markets in Detail	86

FEEDSTUFFS

A Weekly Newspaper Published by
THE MILLER PUBLISHING CO.
2501 WAYZATA BLVD., MINNEAPOLIS, MINN.
(Address Mail to P. O. Box 67, Minneapolis 40, Minn.
(Telephone: FRanklin 4-5200. All Offices Serviced by Bell System Teletype)

EDITORIAL STAFF—George L. Gates, Editor; Roger Berglund, Managing Editor; John Cipperly, Washington Correspondent; Emmet J. Hoffman, Merchandising Editor; John S. Franklin, James E. Sharon and James H. Ross, Editorial Assistants; Duane F. McKenzie, Research Director.

WASHINGTON CORRESPONDENT—John Cipperly, 604 Hibbs Building, Washington, D. C., Telephone, Republic 7-8534.

ADVERTISING STAFF—Wilfred E. Lingren, Advertising Director; Carl R. Vetter, Advertising Department Manager; Bruce A. Kirkpatrick, Advertising Production Manager; Leland C. Hubert, Assistant Advertising Production Manager; R. Dale Swenson, Promotion Manager.

BUSINESS STAFF—Martin E. Newell, Chairman of the Board of Directors; Milton B. Kihlstrum, President and Treasurer; Wilfred E. Lingren, Executive Vice President; Don E. Rogers, Vice President; Paul L. Dittemore, Vice President; Donald G. Neth, Secretary; Edwin J. Hartwick, Circulation Manager; James G. Pattridge, Assistant Treasurer; Richard L. Ostlund, Office Manager; Walter O. Buchkosky, Production Superintendent.

BRANCH OFFICES—SOUTHWEST, Martin E. Newell, Manager; Thomas E. Letch, Assistant Manager, 612 Board of Trade Bldg., 1005 Wyandotte St., Kansas City 5, Mo. (Tel. Victor 2-1350); EASTERN STATES, Paul L. Dittemore, Manager; George W. Potts and James W. Miller, Advertising Sales Representatives, Suite 3214, 551 Fifth Ave., New York 17, N. Y. (Tel. Murray Hill 2-2185); CENTRAL STATES, Don E. Rogers, Manager; Henry S. French, Assistant Manager, 2832 Board of Trade Bldg., 141 W. Jackson Blvd., Chicago 4, Ill. (Tel. Harrison 7-6782); NORTHWEST, Paul A. Anderson, Advertising Sales Representative, P. O. Box 67, Minneapolis 40, Minn. (Tel. Franklin 4-5200).

Correspondence regarding subscriptions, changes of address, etc., should be sent to Circulation Manager, Feedstuffs, Box 67, Minneapolis 40, Minn. Single copies 20¢. Subscription rates: One year $4, two years $7, in the U.S., U.S. possessions, Canada and Pan-America. Add $3 a year for postage to other countries. Readers are urged to give prompt notice of change of address and to anticipate future changes by at least two weeks' advance notice. Ask postman for form 22-8. Feedstuffs accepts subscriptions only through its own offices; no subscription solicitors are employed or recognized. Associated publications: The Northwestern Miller, The American Baker, Milling Production, Croplife, Farm Store Merchandising.

Entered as second-class matter Feb. 25, 1947, at the post office at Minneapolis, Minn., under the Act of Mar. 3, 1879

The regional circulation of this issue is concentrated in the southwestern states

Frank B. Morrison's Classroom

THE death this week of Dr. Frank B. Morrison marks the end of an active career of teaching service unsurpassed in the field of animal husbandry, yet there is no doubt that monumental contributions he has made to knowledge of this subject will continue to provide answers for earnest students. Authorities through the years have regarded his work as singularly effective and immense. His classroom, in a very real sense, has been the world of feeds and feeding.

His distinguished career included service on the teaching and administrative staff at the University of Wisconsin and later on as head of the animal husbandry department at Cornell University. These assignments, his many research accomplishments and service with scientific organizations provided in themselves an active career for this gentleman. Yet, his energetic application of knowledge and ability overflowed these pursuits to produce the authoritative work, "Feeds and Feeding." It is with this gospel of feeding facts that Dr. Morrison is most readily identified by thousands of feed men, as well as by college instructors and students of animal science.

★ ★ ★

A MORRISON biographer a few years ago described the importance of the book to feed men in this manner: "When a feed manufacturer in Horseheads, N.Y., or Green Bay, Wis., or Roanoke, Va., wants to formulate a new dairy ration or poultry mash, or change the formula of an old one, the chances are his first move is to reach for his copy of 'Feeds and Feeding.' In this 1,207-page, 37-chapter, 4-lb., black-bound volume the manufacturer will find all he needs to know about any ingredient he wants to include. . . . When he finishes his calculations he can be satisfied that his product will measure up to its guarantee. He has used as his yardstick the most widely accepted authority in the entire world of feeds."

It would be difficult indeed to guess how many people, needing the answer to some question on the feeding and care of livestock, have consulted "Morrison's." Besides industry technicians, readers of the volume include uncounted numbers of professors and instructors, students and farmers.

Frank Morrison first became associated with the publication while a student at Wisconsin. Dean William Henry, who had authored the first volume in 1898, put out a call for students to assist in gathering data for a revised edition in 1909. The opportunity to help out in this project rescued young Morrison from a job waiting on tables. When a health problem temporarily removed Dean Henry from action, the earnest young researcher was called on to supervise the work. He later became a partner with Dean Henry, and through the years greater responsibility fell to the junior partner. Dean Henry died in 1932.

★ ★ ★

A MONOGRAPH in the bulletin, Corn, a few years ago paid this appropriate tribute to Dr. Morrison: "The man whose life has been livestock owns no farm. Yet in a sense which is wider than any deed or ownership, he owns farms everywhere—the experimental fields, the pastures and barns of every agricultural college in the nation. These are the real sources of new knowledge, the places where theory is put to the test. The new and valid conclusion is available to Morrison; it becomes duly enshrined in the 'Feeds and Feeding' text and ultimately in the minds of thousands of students."

Dedication to his life's work of teaching continued for Dr. Frank Morrison until his death this week. Just two days before, he had presented an address at the Oklahoma State University Dairy Day at Stillwater. Through what he has accomplished in a truly distinguished career, Frank Morrison's teachings will for years to come comprise the biggest chapter in the larger and yet-to-be-written book of animal science.

Quote

Dr. G. H. Gilbert, secretary-treasurer of the Colorado Veterinary Medical Assn., in a letter to the Midwest Feed Manufacturers Assn.: "There has been for entirely too long a conspicuous lack of rapport between the feed man and the members of the veterinary profession. Perhaps we veterinarians should have, long ago, made some attempt to heal this breach, but inasmuch as we didn't and inasmuch as you have begun this, then certainly it would behoove us to cooperate in every manner possible."

A FEEDSTUFFS FEATURE

FORMULA FEEDS: HOW'S BUSINESS?

Formula feed sales continued at a very strong pace through most of the nation during the past week as feeding price ratios held at highly profitable levels. Hog and cattle feed sales were very good in their areas and poultry feeds were showing a seasonal pickup. Dairy feed movement was also reported good. High prices for feeder cattle, however, were one reason for rather slack demand for formula feed in some western areas. Bid-up prices for feeders and good pasture conditions have slowed the movement of cattle into western feedlots. The feedstuffs price index moved up to 84.3, a slight gain over the 84.1 of the previous week and 80.8 a year earlier. The feed grain index rose to 68.4 as against 65.7 the week before and 73.5 a year earlier. (Ingredient price details on pages 86-88.)

Northwest

Formula feed mill representatives had only one complaint to make during the past week. That one was that their prices would be up again for the coming week.

The increase was set at about $2, following a firmer ingredient market particularly for corn, millfeeds and soybean oil meal. The increase followed two weeks of relatively stable prices.

Their major question was whether resistance would be strong enough to affect the good volume of the past three weeks. Demand the past week has ranged from good to excellent. All representatives said their mills were running at normal capacity or more. One said his mill had extended shifts and gone into Saturday production as well to meet demand.

All classes of feeds were moving well with cattle feeds and hog feeds particularly good. Turkey feeds also continued good, and chick starter demand, though spotty, was rated as "well ahead of last year" by some mills.

Central States

Feed business continued at a good pace during the week ending April 9. Order backlogs remained at the two or three-day level and the volume of orders kept plants operating on a full five days a week.

Poultry starting and growing feeds were accounting for the greater part of the volume, but dairy and hog feeds were moving extremely well. The corn-hog ratio was near 1-20, and some observers believed this was close to a record. The conversion ratio for broilers and other livestock also was good. Pastures have not developed enough yet to cut into dairy feed volume. Turkey feed business has slowed slightly in some areas.

Prices were unchanged to slightly higher, but the outlook for the next few weeks was for steady prices. Some ingredients during the period showed some signs of leveling off after a fairly steady climb for the last few months.

Southwest

Busy mills, continued good business and higher prices were features of the formula feed picture this past week. The pace was about the same as in the previous week. Mill running time averaged five to five and a half days, two shifts. Order backlogs were several days for most mills.

The seasonal pickup in chick and turkey starters was being experienced by most mills, though demand was not rushing for those feeds. Hog feeds continued to move in good volume. Demand for cattle rations was spotty—good for a brief period and then slow. Those manufacturers who do a dairy feed business reported that market was holding up. The late spring has kept pastures from greening up as fast as usual.

Broiler feeds were moving well, but layer rations were going along at only a moderate pace.

Optimism prevailed in the feed business. Some mill representatives said that they believe that a good stretch of warm, sunny weather in the area would bring a flood of orders, especially for chick and turkey starters. This demand has dried up somewhat in the area, but so many farmers are behind with their planting that they have rushed to do that work as soon as they were able and have put off buying their baby chicks and poults, some in the trade speculated.

Others said that farmers are not convinced that the upward price trend is here to stay and were buying only hand-to-mouth in hopes that lower prices are around the corner.

Price lists for next week were expected to look $1 to $2 higher, with practically all major ingredients exhibiting strength.

Northeast

Dairy feed continued in demand as cold weather and snow returned to this region. Warm, sunny days had firmed up pastures, but the cold snap has retarded the growth of grass.

In general, formula feed sales were about steady. Tonnage was about even with a year ago, with the exception of broiler feeds which lost some markets during the year.

Egg mashes accounted for a good portion of the week's turnover, followed by broiler and starting feeds. Turkey poults were coming along and their needs will increase as time progresses.

Broiler prices suffered a holiday let-down and were off 1¢ in the East to 19½@20¢ lb.

Eggs also dropped off but the Boston market held up well.

Corn was the outstanding feature of the ingredient market, with a rise of 4@5¢ on a change in the government's export program. Oats held about steady, but barley gained 1¢.

The traditional Easter Monday holiday cut running time of formula feed manufacturers to about 32 hours last week.

Southeast

Feed demand continued good again through the week. Poultry and livestock prices remained firm and feeding ratios were relatively good.

Large areas of the territory reported that pastures were at the point where heavy grazing would be possible if it were not for extremely wet ground caused by heavy rainfall. This has delayed moving cattle onto pasture lands and necessitated additional buying of feedstuffs until dry weather prevails.

Protein meals have held the spotlight most all week insofar as demand goes, with markets advancing almost

(Turn to MARKETS, page 90)

our service and products help you produce

BETTER FEEDS

Peter Hand Research Farm

- **Progressive nutritional research**
- **Practical farm testing and evaluation**

The often-dramatic new developments of science hold the answers to many of your practical problems. Yet, most feed nutritionists and manufacturers simply do not have the time and facilities to test and evaluate all these discoveries for themselves. Today, Peter Hand can greatly expand your testing program and expedite your evaluation of these new developments.

The Peter Hand Foundation acts as your clearing house on nutritional developments. We study and develop formulas and products for you, based on work at our own research farm and laboratory, and upon latest findings from universities. Current research results from all sources are evaluated by the Foundation staff. These developments are then further studied under practical conditions at our applied research farm.

Consider The Peter Hand Foundation as part of *your own* research program, ready to serve you now!

Check the products that interest you and mail this coupon now. We will be happy to send you full information.

PETER HAND FOUNDATION

Division Peter Hand Brewery Co. ©1957 P.H.B. Co. Dept. F-4-12

1000 W. North Ave., Chicago 22, Ill. • MOhawk 4-6300

- ☐ **Peter Hand FW-Premixes** (Vitamins-Antibiotics-Unidentified Growth Factors)
- ☐ **Peter Hand Proven Premixes** (5 and 10 lb. batch size)
- ☐ **Peter Hand Aqua Solva**— Water Soluble Vitamins and Antibiotics
- ☐ **P.H. Vitamin A**
- ☐ **P.H. Vitamin D_2**
- ☐ **P.H. Vitamin D_3**
- ☐ **P.H. Vitamin E**
- ☐ **P.H. Riboflavin**
- ☐ **P.H. Pantothenic Acid**
- ☐ **P.H. Choline Chloride**
- ☐ **P.H. Komplex K**
- ☐ **P.H. Vitamin B_{12}**
- ☐ **P.H. Pepsin**
- ☐ **P.H. Arsanilic Acid**
- ☐ **P.H. Procaine Penicillin**
- ☐ **P.H. Bacitracin**
- ☐ **B.H.T.** (Koppers)
- ☐ **Methionine** (Du Pont)
- ☐ **Lipamone** (White Laboratories)
- ☐ **Rumen Microorganisms** (Natural and cultured)
- ☐ **GP 101 with Multiferm** (Unidentified Growth Factors)
- ☐ **Custom Premixes** (To your exacting specifications)

Peter Hand Foundation, 1000 W. North Ave., Chicago 22, Ill.

Please send information on the items checked above to:

NAME ..... TITLE.....

COMPANY NAME .....

ADDRESS .....

CITY..... ZONE..... STATE.....

Big Farm Stocks of Feed Grains Weigh on Market

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON — Stocks of feed grains on farms on April 1 were at record-breaking levels for that date—hardly a stimulant to higher price levels and clearly indicating that the carryout at the end of this feed crop year will show another increase.

The U.S. Department of Agriculture, in its monthly crop report, said this week that farm stocks of feed grains on April 1 were almost an eighth larger in total tonnage than a year earlier.

Here's the USDA estimate of the farm stocks, with the percentage increases over last year:

Corn—1.7 billion bushels, up 3%.
Oats—543 million bushels, up 31%.
Barley—149 million bushels, up 41%.
Grain sorghums—96 million bushels, more than triple last year.

Of these farm-held stocks, USDA reports the following quantities held on farms under loan programs: Corn, 230 million bushels; oats 35 million; barley, 64 million; sorghums, 38.5 million.

The January-March disappearance of all these grains at the farm level exceeded the amounts of last year.

Soybean Stocks

Another increase in farm holdings is found in soybeans, where a record level of 116 million bushels is reported by USDA. Of this nearly 50 million bushels are held under the government loan.

This loan program closed on Jan. 31, and the large quantity held by farmers, outside the loan program, would indicate that the farmer is a speculative holder of beans to the extent of more than 65 million bushels at this time.

Trade and government estimates indicate that Commodity Credit Corp. probably will take over through loan defaults approximately 50 million bushels of beans this year.

Farm stocks of beans are heavily concentrated in the north central area, accounting for 93% of the farm holdings.

The January-March disappearance of farm stocks of beans this year is estimated at 72 million bushels, as compared with 52 million a year earlier.

An interesting item in the farm stocks report shows that in Nebraska, there were held on farms as of April 1 nearly 150 million bushels of corn and about 28 million bushels of sorghum grains.

This state has been reported by USDA as an acutely tight storage area, where the government may be required to make some emergency movement of grains into export markets.

Increase in Corn Surplus

The farm corn holdings of 1.7 billion bushels at this time, also colored by the presence of record stocks of grain sorghums, indicate that there will be an increase in the corn surplus at the end of this crop year, on the basis of recent history of disappearance of that crop in the two remaining quarters of the crop year.

Last year, corn disappearance amounted to slightly more than a billion bushels, domestic and export.

This year with a large animal population, it can be ordinarily expected that disappearance will be somewhat higher, but such an estimate must make an allowance for the competitive presence of grain sorghums which will press for a market in about the same areas as corn.

In fact, the sorghum supply will compete with corn most heavily.

On the basis of recent experiences, sorghums by truck movement from the Southwest have been making heavy inroads into corn shipments to the West Coast.

Big Free Market Supply

One conclusion which may be drawn from this farm stocks report is that there should be no doubt that there is a huge supply of corn and feed grains in the nation, and a considerable quantity of that supply is clearly free market supply.

The corn loan program commitments through March 15 are now re-

(Turn to FARM STOCKS, page 39)

William J. Chapin

HEADS SWIFT FEEDS—William J. Chapin has been named head of the general feed department at Swift & Co., according to C. T. Prindeville, vice president. He succeeds T. R. Colvin, who has been assigned responsibility for sales and development of animal protein feeds. Mr. Chapin joined Swift & Co. in Chicago in 1920, and during his years with the firm he has been engaged mostly in plant food activities. From 1947-52, he was manager of the plant food factory at Norfolk, Va., and most recently was general sales manager for southern plant food units and in charge of agricultural plant food marketing in the agricultural chemical division.

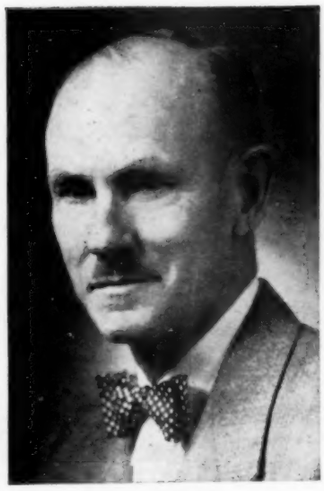
Chicago Feed Club To See Golf Film

CHICAGO—A half-hour film of the recent Bing Crosby Golf Tournament will be the feature attraction of the next meeting of the Chicago Feed Club, scheduled for April 18 at the Germania Club here. The social hour will begin at 6 p.m., with dinner served at 7.

The film is billed as one of the best golf films ever produced. Along with entertainment stars Bing Crosby, Bob Hope, Dennis Morgan, Johnny Weissmuller, Hoagy Carmichael, Richard Arlen, Max Baer and the Great Gildersleeve, golfing greats Lloyd Mangrum, Jimmy Demaret, Jackie Burke, Jr., Jimmie Thompson, Lawson Little, Jr., Tommy Bolt, Byron Nelson and others will be shown.

At the March 21 meeting of the club the following new members were introduced by Don Huffman, Nellis Feed Co., chairman of the membership committee:

W. M. Bruso, Merck & Co.; G. P. Neil Danehy, Jr., Distillation Products Industries; D. V. McGowan, Hudson Pulp & Paper Corp.; V. W. Nielsen, Midwest Dried Milk Co.; E. E. Pollack, Equitable Paper Bag Co.; Bruce Waddell, Blatchford Calf Meal Co.; R. T. Whelan, Nopco Chemical Co.; W. R. Dally, Victor Transit Corp.; E. F. Hartman, Taste Engineering, Inc.; P. J. O'Connell, Dayton Bag & Burlap.



F. W. Atkeson

F. W. Atkeson, Kansas State College, Dies

MANHATTAN, KANSAS — F. W. Atkeson, 64, head of the Kansas State College department of dairy husbandry since 1935, died of cancer April 4 at the Riley County Hospital in Manhattan.

Widely known in the formula feed industry through his work as chairman of the annual Kansas formula feed conference, Prof. Atkeson was honored by friends in the feed industry in January. They established an "F. W. Atkeson Loan Fund" to be used for worthy students at Kansas State College.

Prof. Atkeson has been in failing health since last fall.

A native of Missouri, he received his B.S. degree in agriculture from the University of Missouri in 1918 and his M.S. from Kansas State College in 1929. He was an assistant in the Kansas State dairy department from 1918 to 1920 and was head of the dairy department at the University of Idaho from 1921 to 1935, when he returned to Kansas State.

He was widely known as a dairy cattle judge, and he was an official classifier for three dairy breeds. Recently the Kansas Inter-Breed Dairy Cattle Council cited him as a Kansas dairy leader.

Contributions for the Atkeson loan fund are being accepted at the college.

Surviving are his widow, a son, George, two brothers and a sister.

Grain Dealer Indicted On "Fraud" Charges

MEMPHIS, TENN. — A federal grand jury this week indicted Landon Butler and two associates on government charges that the three perpetrated "the fraud of the century" in a $4,500,000 soybean deal.

Mr. Butler is a former grain man said to have once controlled large amounts of soybeans.

He was released under $10,000 bond.

His fellow defendants are Ernest Spencer Morgan and John Wilson, Sr., who operated Mr. Butler's grain elevator in Mobile, Ala.

Mr. Butler faces a maximum sentence of 70 years and a $14,000 fine if convicted on all counts. Arraignment is scheduled April 25.

Mr. Butler has previously served a state prison sentence in connection with the sale of receipts for nonexistent beans.

The grand jury charged that Mr. Butler and his associates used the telephone and telegraph in setting up the soybean transaction and that bogus receipts were sent through the mails. It was shown during trial in the state court that Mr. Butler had only a few beans in the Mobile elevator when he sold receipts to Continental Grain Co. and Leval & Co.

N.M. Farm Product Firm Formed; to Build Feed Mill

SOCORRO, N. M.—A group of Socorro businessmen and ranchers has formed a $500,000 corporation—named the Agricultural Marketing Assn.—for processing and marketing livestock and other products of the Middle Rio Grande Valley. First phase of the venture, designed to woo New Mexico's foodstuffs customers away from competing out-of-state firms, is construction here of a $182,500 feed mill.

Initial plans call for purchase of 35 acres of land in the Socorro city limits at $21,000 for the feed plant site. J. C. Moon, Socorro rancher and feeder, and president of the new enterprise, says that he hopes construction can start this month so that the 1958 crop can be processed.

"Complete Service"

The mill will provide office space for the AMA, which, Mr. Moon said, was formed "to build necessary plants and facilities to offer a complete marketing service for livestock, feeds, hay, grain, fruits, vegetables, canned goods and other agricultural commodities produced or required in this area."

In marketing the products, Mr. Moon explained, AMA plans to associate itself with brokers, wholesale jobbers, chain stores, other retail outlets and manufacturers.

Goal of the operation, he added, is to establish definite marketing facilities for marginal farmers and ranchers of the Middle Rio Valley.

"If we can develop the valley," Mr. Moon said, "we can put people to work. In the first year of operation, we hope to have a business payroll of about 50 persons in the plant and to double the field and farm labor."

Alfalfa Plant

Mr. Moon said the association also plans eventually to build an alfalfa dehydrating plant, a vegetable-packing building and livestock shipping facilities. Further expansion would be financed by sale of bonds and debentures.

"When people have learned to produce the desired crops for our cannery," he said, "the association's long range plan could become a reality, with green chili a major crop."

Officers of the association are Mr. Moon, president; Frank Knoblock, treasurer, and J. Fred Bamert, vice president. Mr. Moon has been in the farming and livestock business in the valley since 1932 and is a licensed general contractor. Mr. Bamert is a Socorro cotton farmer and has been active in the New Mexico Barm Bureau. Mr. Knoblock, former Socorro County sheriff, operates an irrigated farm and Hereford ranch near Socorro.

Walnut Grove Sales Show 47% Increase

ATLANTIC, IOWA — Sales of the Walnut Grove Products Co., Atlantic, increased 47% during the first quarter, compared with a year ago, according to an announcement by E. A. Kelloway, president of the feed manufacturing firm.

It was also announced that the firm has leased the Connell Building in Grundy Center, Iowa, to serve as a distributing point for Walnut Grove Products in Grundy county and seven nearby counties.

The building was formerly occupied by Connell Brothers, who sold feed products until a few months ago.

MANEY BROS.
MILL & ELEV. CO.
Minneapolis, Minnesota
Distributors in the Upper Midwest States for
SMALL'S DEHYDRATED ALFALFA MEAL

there's money in the LIPAMONE finish!

LIPAMONE OPENS UP NEW MARKET FOR ALERT FEED MEN

Build feed sales with the only in-the-feed poultry hormonizer.

"In-the-feed" LIPAMONE now replaces the needle, the pellet, the paste, and the "gun" crew.

Today poultrymen seek their favorite formulas with LIPAMONE added, for better bloom, excellent weights, uniform quality finish.

LIPAMONE is the estrogenic hormone, dienestrol diacetate, in a carrier of corn distillers' dried grains. It is easily added to any feed formula. Proportions clearly listed on the label. LIPAMONE goes right along with whatever additives you may now be using.

SOLD in 1-lb. cans and 50-lb. drums to the Formula Feed Manufacturers.

Finish in the money

LIPONETTE "the 24-carat bird"

LIPAMONE

"It's in-the-feed"

Phone, wire, or write for further information.

Agricultural Division
WHITE LABORATORIES, INC.
Kenilworth, N. J.

"Integrated" Egg Programs Reported Increasing in East

TRENTON, N. J. — Growing numbers of integrated egg production programs are reported in several eastern states.

This is noted in a recent "conditions report" from the Northeastern Poultry Producers Council.

The council prefaced the report in its NEPPCO News with this introduction: "The information reported here is opinion and observation. No attempt to make a statistically sound coverage or analysis has been intended or made. It is valuable as a guide to what is going on in various areas. It represents the reports of 39 'informed individuals,' plus some comments of the NEPPCO staff."

The NEPPCO reporters explored the extent of "outside-financed," "contract" or "integrated" egg producing flocks in states from Maine to Virginia. A growing number of egg production "deals" was reported.

NEPPCO said that its survey probably was not complete but that it did reveal the following:

Maine: Several hatching egg production contract deals with base payments to growers of "X" cents per week per layer, plus, in some cases, bonuses. Also two deals for market eggs operated by "wholesale dealers" on a similar basis with payments of 2½@2¾¢ per week per layer, plus bonuses for efficiency and quality. The producers own the houses and equipment. The contractor owns the birds and specifies the feed to be used.

New Hampshire: Several hatchery-sponsored deals are in effect, and at least two feed company deals on market eggs are in operation. Here again only the birds are contractor-owned.

Massachusetts: Several feed dealer projects where dealer supplies chicks, feed, etc., are in operation. The grower gets paid on the basis of dozens of grade A eggs, plus a bonus.

Rhode Island: Several hatching egg deals are being offered for meat-type birds.

Connecticut: One of the market egg deals in effect specifies a group of strains of birds and the feed (feed company-sponsored) and gives a guaranteed minimum price in relation to the market quotation for eggs.

New York: Only one experimental deal reported.

New Jersey: None reported, but we know of two projects being promoted.

Pennsylvania: Several feed dealer and feed company deals are operating; also several hatchery deals for hatching eggs. In every case, the contractor owns the birds and provides the feed. The grower supplies the buildings, labor and know-how under supervision. In return he receives 10 to 12¢ dozen on hatching eggs, less in market egg deals.

Virginia: One co-op and one feed company-sponsored deal are reported. The grower is paid on a quoted market basis. He owns the birds as well as house and equipment.

West Virginia: None reported.

Ohio: Several deals are in effect, offered by feed companies and hatcheries. Most of these specify acceptable strains of birds, the feed to be used, the equipment (cooling) and delivery. Payment is based on specified market.

Egg Prices

The NEPPCO "conditions" report also included reporters' "guesstimates" as to egg prices by periods for the coming year. Most persons were optimistic, especially for the short haul, but college and market men differ sharply with most growers on the fall outlook.

The question was: "How much above last year do you think egg prices will be?"

Replies ranged from 3 to 18¢ higher during March-April, with an average prediction of 10.3¢ higher. For May-June the range was 3 to 17¢, with an average prediction of 9.5¢ higher. For July-August, reporters look for prices 0 to 15¢ higher than a year earlier, with an average prediction of 6.4¢ higher. For September-October, answers varied from 2¢ lower to 13¢ higher; the average was 3.1¢ higher. For November-December, the range was from down 10¢ to up 11¢, with an average of the replies being .7¢ higher.

Comments plus figures given seemed to indicate the feeling that prices would peak this summer, perhaps in August-September, and then taper off.

More Started Pullets

NEPPCO said the strong tendency toward started pullets confuses the picture on starting egg-type chicks somewhat. Perhaps the slow early season has forced many larger hatcheries to start, or contract, pullets, the report said. Many buyers were said to be favoring buying started pullets.

Intentions for starting chicks for market egg production were highest in Maine, where an increase of 11% was seen. Estimates graduated downward in states west and south to an increase of 5% over a year ago.

FIRST COPY — Walter Hoffman (left), president of Hoffman-Taff, Inc., Springfield, Mo., presents Lloyd Larson, executive vice president of the Midwest Feed Manufacturers Assn., with the first copy of the transcript of the recent Midwest convention. The transcript is donated by Hoffman-Taff and is being mailed out to all registrants at the convention. It is also available at Hoffman-Taff and the Midwest office. It contains all speeches at the convention, information on Midwest activities and a pictorial presentation of the Midwest banquet. The transcript is bound in a cover which features the trademarks of active Midwest members.

Foxbilt Reports Record Sales Total

DES MOINES — Edwin L. Fox, president of Foxbilt, Inc., Des Moines, manufacturer of Foxbilt Feeds, has announced that sales for March, 1958, topped all previous monthly volume records.

Both tonnage and dollar volume figures were highest ever recorded by the company.

Film List Available

NEW YORK — The agricultural division of American Cyanamid Co. has prepared a booklet entitled "Cyanamid Agricultural Films" which lists all the 16 mm. films available to farm organizations without charge. A copy of the booklet is available upon request.

M. S. Wright, Sr. M. S. Wright, Jr.

M. Steele Wright, Jr., Heads Texas Firm

NACOGDOCHES, TEXAS — M. Steele Wright, Jr., general manager, has been elected president of Texas Farm Products Co. of Nacogdoches at a meeting of the board of directors here.

He succeeds his father, M. S. Wright, Sr., who resigned as president after serving in that capacity for 22 years. Mr. Wright, Sr., was elected chairman of the board at the meeting and will serve actively in the operation of the company, which manufactures Lone Star Feed and Fertilizer. He will continue to maintain his office at the company's headquarters in Nacogdoches.

M. S. Wright, Sr., founded Texas Farm Products Co. in January, 1930, when the firm started with a fertilizer plant, producing 10,000 tons of fertilizer annually. He had come to Nacogdoches from Baltimore, Md., where he was division manager for Armour Fertilizer Works and was in charge of sales in five states.

Steel Wright, Jr., started with the company at its organization.

In 1952 Texas Farm Products Co. constructed a push button, completely electrically controlled feed mill with an annual production capacity of 150,000 tons. In 1954, under Steele Wright, Jr.'s direction, the company constructed a 10-story-high concrete grain elevator that would store 500,000 bushels, raising its storage capacity to 600,000 bushels.

The original fertilizer plant was incorporated into the feed mill warehousing facilities in 1955 when the company constructed a new 50,000-ton fertilizer plant which now produces 16 different analyses of pelletized fertilizer.

Acme Flour Quits Milling Operations

OKLAHOMA CITY, OKLA.—C. C. Reynolds, president and general manager of Acme Flour Mills, Inc., announces the decision of the board of directors for a permanent shutdown of the company's flour milling operations here. The company has been engaged in flour milling operations since 1929. Its mill has a rated capacity of 3,450 sacks a day.

The permanent shutdown will not affect the company's grain storage operations. It will continue such operations at Oklahoma City, where it has storage capacity of approximately 500,000 bu., and at Guthrie, Okla., where it has storage capacity of approximately 525,000 bu.

During the early years of its milling operations, Acme's activities were directed primarily toward a market for family flour. As a result of changes in the pattern of modern living, this market has been practically eliminated, and the heaviest demand is now for bakery and export flour. In order for Acme to avail itself of these markets to the fullest extent, it has become evident that substantial expenditures would have to be made to modernize the mill, Mr. Reynolds said.

The decision to discontinue the milling business rather than modernize is based, in part, upon the competitive position of flour mills in Oklahoma and Texas, which position has been impaired by action of the railroads in reducing freight rates on wheat and grain for export without a corresponding reduction of freight rates on flour for export.

Plans Outlined For 1958 Midwest Production School

KANSAS CITY — General program plans have already been formulated for the 1958 Midwest Feed Production School.

"Bulk Handling of Finished Feeds" will be the main theme of the school, to be held Nov. 12-14 at the American Royal Building in Kansas City.

Plans for the annual event—sponsored by the Midwest Feed Manufacturers Assn.—were outlined this week by J. D. Johnson, General Mills, Inc., Minneapolis, chairman of the production school planning committee.

The first two days of the school will be devoted to bulk handling. Topics to be covered in talks and demonstrations include:

1. Labor economies.
2. Capital investment requirements.
3. Principles of materials handling applied to bulk.
4. Survey of existing research.
5. Designing the in-plant system.
6. Designing the distribution system.

A study of bulk handling in representative feed mills will form the basis of some of the talks, such as those on labor economies and capital investment requirements.

To Examine Problems

Certain problems of bulk handling will be examined in special talks and panel discussions. These include: (1) shrinkage, (2) contamination, (3) fines, (4) product identification, (5) product flow.

Another feature will be an evening session on "Bulk Handling, Tomorrow's Solution and System."

Demonstrations with actual equipment will be part of the bulk handling sessions as well as other sessions at the school. Various types of machinery also will be on display.

This year's school again will feature specialized sessions on various phases of mill operations. Subjects to be covered in these sessions, on the third day, are (1) Liquids, (2) micro-ingredients, (3) maintenance and cost control, (4) remodeling of a mill, (5) pelleting.

Custom Milling School

Also on the third day will be an innovation at the production school—a special one-day school for the small feed mixer. This "Custom Milling" school will have lectures, with actual machinery demonstrations, on: (1) Receiving, (2) preparation, (3) mixing, (4) pelleting-custom mill, (5) packaging, and (6) shipment. Each session will deal some with costs and records as they pertain to the small feed operation.

Separate enrollment may be made for the one-day custom milling school.

Monsanto Chemical Directors Reelected

ST. LOUIS—All members of Monsanto Chemical Co.'s board of directors were reelected at the company's 56th annual meeting of shareowners.

Those reelected were Edgar M. Queeny, chairman, Charles Allen Thomas, Francis J. Curtis, John L. Gillis, Carroll A. Hochwalt, William W. Schneider and Felix N. Williams, all of St. Louis; Thomas H. Barton and Trueman M. Martin of El Dorado, Ark.; Charles S. Cheston of Philadelphia; Frederick M. Eaton of New York; and Ernest O. Lawrence of Berkeley, Cal.

The directors elected Mr. Gillis and Mr. Martin to the company's executive committee. Mr. Gillis has been a vice president of Monsanto since 1950 and a member of the board of directors since 1955. When Lion Oil Co. merged with Monsanto in 1955, Mr. Martin became a member of Monsanto's board, a vice president of the company and remained as president of the Lion Oil Division.

Chicago Exchange Observes Its 110th Anniversary

CHICAGO — Commemorating its 110th anniversary, trading activity on the world's largest and oldest commodity futures market was halted briefly April 3 while Richard J. Daley, Chicago mayor, presented a congratulatory resolution to the membership of the Chicago Board of Trade. The commendation, adopted unanimously by the city council, was read by the mayor from the public gallery overlooking the floor of the exchange.

Heading the reception committee escorting Mayor Daley and his party to the point of vantage on the gallery and later for a tour of the various trading pits and the cash grain department was Thomas E. Hosty, Sr., chairman of the board, and Warren W. Lebeck, secretary.

In his brief comment preceding the presentation, the mayor made mention that the board of trade was Chicago's junior by only 11 years and said that, as one of the city's largest business and civic institutions, the board has kept pace with the progress made by Chicago itself.

Reason for Formation

One reason for the formation of the Chicago Board of Trade in 1848 was the previous lack of a central market place.

Those 82 pioneer Chicago merchants who founded the infant exchange wished among other things, as was marked in their statement of purposes preceding their constitution and by-laws, 'to promote uniformity of customs and usages of merchants and to inculcate principles of justice and equity in trade."

Until such time as uniform standards for grading of grains were officially determined, the standards set up by the Chicago Board of Trade were adopted and used as models by many other grain marketing centers. Likewise, the rigid procedures initiated and called for by the Chicago Board of Trade in the weighing operations of its warehousemen members and allied industries have been used for many years by state and exchange

(Turn to CHICAGO, page 90)

For Richer Sweet Smelling Appetizing Silage

SELL SPRING PASTURE

Flavored Silage Preservative

To Eliminate "SILO STINK"

—Make all silage more appetizing and nutritious—Preserve vitamins (up to 17% more carotene, 21% more vitamin E, and 6% more protein)—make poor roughage more palatable.

WRITE FOR SAMPLE AND PRICES

The KALO CO. Quincy, Ill.

Spring Pasture

CUT Phosphate COSTS

APPROXIMATE COMPARATIVE COST PER UNIT OF EFFECTIVE PHOSPHORUS

(Delivered Midwest)

Soft Phosphate	$2.75
Bone Meal	6.85
Dicalcium Phosphate	4.75
Defluorinated Phosphate	4.70
Low Fluorine Rock Phosphate	4.35

Soft Phosphate

WRITE for brochure, research data, sample & price

Soft Phosphate Inc., Box 31, Media, Pa.

K. G. Sanderude

Wenger Announces New Appointments

SABETHA, KANSAS—The Wenger Mixer Manufacturing Co. has announced the appointment of Kenneth G. Sanderude as sales manager, effective May 1.

Mr. Sanderude is a native of Forest Lake, Minn., and has an agricultural background, including experience with poultry. He was educated in Minnesota.

Prior to joining Wenger, he was district sales manager for the Puritan Gas Co. and regional manager for the Skelly Oil Co. Earlier he was with the Minnesota Game & Fish Department.

Mr. Sanderude's office will be in the company's headquarters in Sabetha.

Oak B. Smith, sales manager, has been appointed to the newly created position of director of market research for Wenger, with offices after May 1 in the Federal Reserve Bank Bldg. in Kansas City.

Mr. Smith will be responsible for market research activities, market development among national feed manufacturers, and the company's advertising program. He will be responsible also for industrial applications of Wenger equipment, including cereal processing and dog food equipment. He also again becomes Wenger's export sales manager. Mr. Smith managed the export division from 1950 to 1953 and since has been sales manager.

George LaBudde Heads Milwaukee Exchange

MILWAUKEE—George D. LaBudde, LaBudde Feed & Grain Co., has been elected to serve a third term as president of the Milwaukee Grain Exchange.

Other officers elected at the recent annual meeting were John G. Davis, vice president; James G. O'Brien, secretary and treasurer; B. J. Krieg and Gerald M. Mitchell, directors.

Named to the board of arbitration were John W. Engler, Richard D. Fuller and R. W. Hoth. Named as members of the board of appeals were Harry F. Franke and A. H. Hurley.

Bulk Fair to Be Held in St. Paul

ST. PAUL — Plans have been announced for a "Bulk Feed Fair" to be held June 11-13 at the Minnesota State Fairgrounds in St. Paul.

Feed men in the area will be invited to attend the event.

Companies which manufacture and distribute equipment for bulk feed handling and delivery are being asked to exhibit. Arrangements are being made by the Butler Manufacturing Co. in Minneapolis.

R. S. Noller of Butler announced the dates and plans for the event.

Marketing 'Revolution' Predicted in Talk On Integration

EAST LANSING, MICH. — "The next decade will bring about a revolution in the market place antiquating many of the present-day marketing operations," a Purdue University agricultural economist said here recently.

The economist, Dr. R. L. Kohls, was one of the speakers in a discussion of integration at the annual Agricultural Marketing Clinic at Michigan State University.

(A prediction of more vertical integration, and at a stepped up tempo, was made by Dr. John H. Davis of Harvard University in a talk reviewed on page 63 of Feedstuffs.)

Dr. Kohls declared that "the prime motivation for vertical integration is more profit."

"Advocates of this concept also point to a better consumer product, a reduction in marketing costs, and greater power and prestige for those engaged in this type of operation," he said.

"The integration of basic marketing processes, not an entirely new concept, is a commodity idea and does not necessitate the harnessing of the total farm operation," Dr. Kohls explained. "The concept is unique because this coordinating venture does not stop at the farm gate but also brings the farmer into the operation."

Dr. Kohls pointed out that each of the parties involved in vertical integration will give up something in return for something else. "The farmer gives up certain rights in running his business in exchange for some form of guaranteed return," he said. "The integrator accepts more of the market risks in exchange for a guaranteed quantity and quality of the product."

In addition to the speeches on vertical integration, the annual conference offered workshop sessions.

Trithiadol Price Cut

NEW YORK — Sterwin Chemicals, Inc., New York, has announced a reduction in the price of Trithiadol, a new coccidiostat. R. S. Whiteside, president, stated that the new price levels permit feed manufacturers to use Trithiadol at a cost of less than 1¢ per broiler grown. He said the "excellent acceptance of the product in the trade" has made possible economies which permitted the price reduction.

New Plan for Feed Grain Price Props Developed

By JOHN CIPPERLY

Feedstuffs Washington Correspondent

WASHINGTON—The House Agriculture Committee has developed a tentative bill for price supports for corn and grain sorghums for the 1959-60-61 years. The bill would eliminate the commercial corn belt classification, establish a national feed grain base of 102 million acres for the entire nation and at the same time provide a 1959 grain allotment of 80% of the national feed grain base.

For the other two years, the allotment could be adjusted higher, but not in excess of 90% of the national feed grain base.

Each individual farm would be given an individual feed grain base and allotment computed on the basis of the historical base period for corn and sorghum acreage during the years 1955-57.

The proposal carries an incentive to the producer to enter a conservation program for which he would obtain payment in cash or in kind from CCC stocks at the rate of 90% of parity for the crop in cash, or in kind up to 90% of the farm yield for those grains.

A maximum of $75 per acre would be imposed.

Compliance Provision

The proposed bill would require compliance with acreage allotments and failure to comply would deny the producer eligibility for price supports on other crops where available.

A referendum would be required to make the program operative through a simple majority of producers voting.

They would have the choice of:

1. No program, no price support and no acreage allotments or marketing quotas;

2. Three-year program of low price supports without controls and without payments, with support fixed at 90% of the average market price received by farmers for the three years preceding the 1959-61 period.

Sorghums would be supported on an appropriate level on the basis of its feed relationship to corn.

This measure has not been introduced in the House and is said to represent collective ideas obtained by the House Agriculture Committee from representatives of the farm organizations and producers.

CONVENTION PLANNERS—This group is shown at the seventh annual Quad-State Grain, Feed and Seed Convention in Sioux City, Iowa. They are (top, left to right): Jack Martin, Kansas City; Madison Clement, Waco, Texas; Harley Jackson, Sioux City; Dean Daniels, Sioux City, and Tommy Thompson, Kansas City. In the lower picture are (left to right): Mrs. and Mr. Joseph Gibney, Mr. and Mrs. Dwayne Maher and Don Suttie, all of Sioux City. Mr. Clement was one of the main speakers and Mr. Maher presided at the banquet. Mr. Suttie and Mr. Gibney served on the convention committee and program committee, respectively. Mrs. Suttie and Mrs. Maher were on the ladies entertainment committee.

SWINE GROWING

(Continued from page 1)

cost of production facilities. The result will be a leveling-out of the ups and downs of the past, but at a lower price," the hog grower contended.

Sees Lower Ratio

He said that in the long run hogs will be produced by those who can grow them the cheapest, and that the hog-corn ratio will be lowered permanently.

"If feed companies want to integrate the hog business," Mr. Brauer said, "I would rather see them build their own production facilities and produce their own hogs. In periods of over-production, only the farmers suffer. In fact, too many hogs mean more feed sold and more profit to the feed company and also more profit to the packer. This situation makes integration by the feed companies a very great danger to the producer whether he is an individual or a contract producer."

"In the past the in-and-outer has controlled the volume of hogs produced. If he is replaced by the contract producer, then we will have continuous over-production and lower prices. If the volume of production is controlled by the feed companies, they will want over-production in order to sell more feed.

"Integration in which only one party takes risks and others are guaranteed a profit is not a healthy situation."

Mr. Brauer said he "knows of no contract that has anything to offer the efficient producer."

The speaker said that if producers want hog production to continue to be a profitable business, they must control integration in the Corn Belt.

"One of the greatest threats which we face due to contract production is in our marketing system," he declared. "Contract production is bypassing our central markets. This can lead to a dangerous situation.

"I would like to see our Swine Herd Improvement Assn. make a study of this situation."

Mr. Brauer continued by saying that in the next few years only the more efficient producers will stay in the hog business.

Advocates Farm Mixing

Mr. Brauer pointed out that automatic, electric equipment is available to the producer to grind, mix and handle feed. "I believe this equipment will become very important in reducing our cost of production," he said. "I have used this type of equipment for almost a year now. My fall pigs were on a feed test in which the ration was mixed and ground with this equipment.

"The ration was made up of corn, soybean meal, vitamins, antibiotics and minerals. The pigs were on test from weaning at 26 lb. to about 155 lb. Two groups of pigs on drylot produced 100 lb. of pork on 326 lb. of feed. Two groups on concrete produced 100 lb. of pork on 296 lb. of feed. The feed costs were 7.2¢ on drylot and 6.7¢ on concrete.

"I don't think the contract producer can improve on the feed efficiency of this system. His feed will be more expensive because the feed company will include a processing charge and a delivery charge and also a profit in the cost of the feed."

Feed Industry View

Representing a feed industry viewpoint, Dr. Krider said it is only natural that the feed industry wants the swine industry to grow soundly and profitably because it is an excellent feed market and because lean pork is good for the American dinner table.

He quoted Dr. John H. Davis, professor of agribusiness at Harvard University, as saying that the forces that are shaping the future of our food and fiber economy are pushing

(Turn to SWINE GROWING, page 55)

now!

pulverized oats from Fruen's for less than you can grind your own!

Fruen's

It's a fact, the economies of our volume production coupled with the most modern milling facilities actually enable us to sell you pulverized oats for less than you can produce your own.

What's more, you eliminate the need for maintaining an inventory, you save valuable bin space, and you are assured of a constant supply of guaranteed fresh pulverized oats for your mixes.

We are currently milling four grades of pulverized oats to meet the most exacting requirements of quality and price. Send for samples and prices on our Crescent, Mixers', Standard and Falcon brands to see which one best suits your needs. All four brands are also available in coarse ground or custom ground to your specifications.

MIXED CARS SHIPPED AT STRAIGHT CAR PRICES

Millers TO THE TRADE

FRUEN MILLING COMPANY
MINNEAPOLIS 5, MINNESOTA

Contact your broker or dealer or
Teletype: MP 477 • Telephone: FRanklin 4-2142

Charles A. Wenz

C. A. Wenz Continues In Advisory Capacity

CHICAGO—Charles A. Wenz, who is retiring as director of purchasing for Red Comb Pioneer Mills, Inc., will continue in an advisory capacity and as purchasing agent for the Hales mill in Chicago.

Mr. Wenz, "dean" of purchasing agents in the feed industry, retired after 39 years of service to Red Comb Pioneer Mills.

(His retirement and several personnel appointments in the firm were announced in a story in the April 5 issue of Feedstuffs.)

Mr. Wenz has been trading in feed ingredients since 1901, when he started to work for the Chapin Co. in Philadelphia. In 1905 he joined the Bernet Craft & Kaufman Milling Co. in St. Louis to sell millfeed and job other feed ingredients. In 1909 Mr. Wenz, E. O. Hunter and A. C. Robinson formed the Hunter, Robinson & Wenz Milling Co., and in 1913 Mr. Wenz opened an office for the firm in Philadelphia.

In 1917 Mr. Wenz enlisted in the Canadian Army. After his release from service in July, 1919, he joined Red Comb Pioneer Mills, Inc., as director of purchasing and was serving as head of this department when he retired.

Mr. Wenz is a charter member and former director of the Chicago Feed Club.

Edward T. Hadorn succeeds Mr. Wenz as director of purchasing for Red Comb Pioneer Mills.

Dr. Charles Thompson, Feed Nutritionist, Dies

SPRINGFIELD, ILL.—Dr. Charles M. Thompson, formerly director of research for the Beardstown (Ill.) Mills Co., died April 7 at St. John's hospital here. He had been ill for several weeks.

Dr. Thompson was a graduate of the University of Kentucky, and he received his doctor's degree from Oklahoma State University.

He was on the staff at the University of Kentucky for three years before going to the Beardstown Mills Co. 2½ years ago. He had resigned his position with the milling firm on Dec. 15 to establish a nutrition consulting service.

Coronet Wins Award

NORFOLK, VA. — The National Safety Council has announced that Coronet Phosphate Co., Norfolk, a division of Smith-Douglass Co., has been named first place winner for 1957 in the council's Division 4 fertilizer section. An award plaque will be presented to the Coronet operation at Plant City, Fla., location of the company's mines, for having achieved the best safety record among competing phosphate mines during 1957.

WIRTHMORE'S CONTROLLED FEEDING PROGRAM MEANS MORE MONEY FOR YOU

Get the most out of your layers and breeders with Wirthmore's controlled feeding program for replacements. It has proved effective for all popular breeds and with all Wirthmore feeds for growing replacements.

This program is backed by five years of careful research and over two years of successful use in the field. It was the *first* program to restrict total feed consumption on a "per pound" basis. It was the first program to take into consideration the nutritional needs of the growing pullet at different ages. Wirthmore research has shown that controlled feeding is superior to any other method of feeding replacements during the growing period.

Whether you are feeding market egg or breeder pullets, the Wirthmore controlled feeding program means more profit per bird for you. Here are some of the advantages that research and field experience prove you can expect from the Wirthmore program:

1. **Improved egg production.**
2. **Less feed per dozen eggs.**
3. **More income per bird.**

Controlled Feeding Pays!

Harold and Dorothy Glover, owners of Red Dot Poultry Farm, Alton, N. H., keep 3600 hybrid layers. Their chicks are started on Wirthmore Chick Starter and at 8 weeks are switched to a controlled feeding program using Wirthmore Grow & Egg pellets and oats. During the laying period Hi-Ener-G 16 mash is fed, supplemented with pellets.

A recent Red Dot flock laid 246 eggs per bird housed in twelve months. No culling was done and mortality was only 5% for the entire year. This flock consumed 4.4 lbs. of feed per dozen eggs.

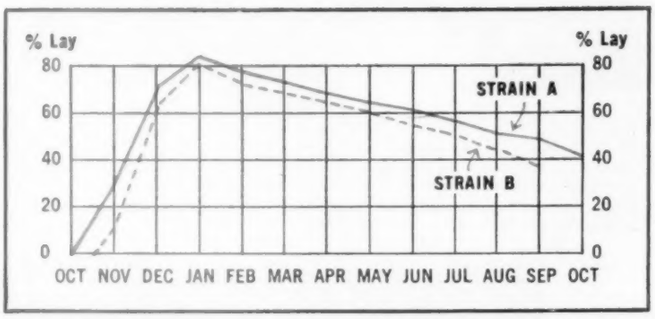
A current flock at this farm has average 82% production for 5 months.

For information about this program contact your Wirthmore representative.

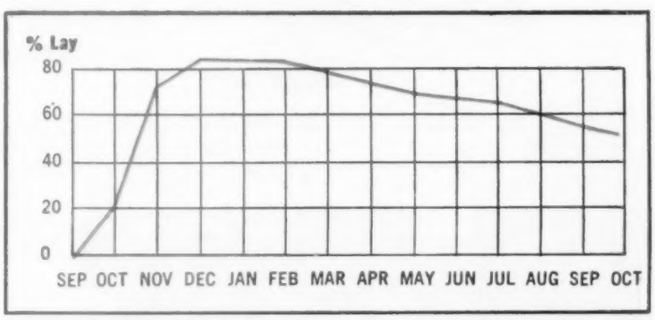
WIRTHMORE FEEDS INC.

WALTHAM, MASSACHUSETTS

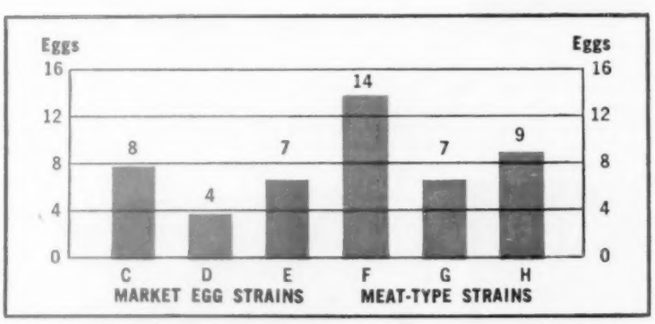
Research Data Supports Wirthmore Program



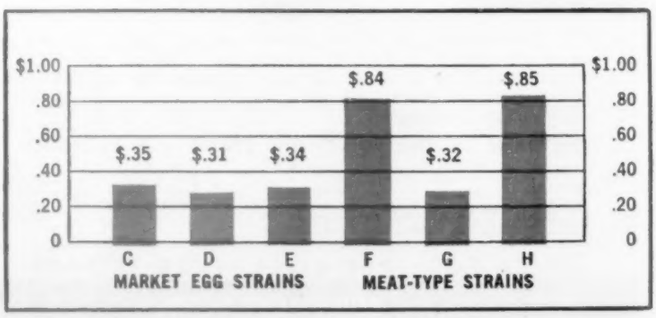
EGG PRODUCTION FOR MEAT-TYPE BREEDERS GROWN ON CONTROLLED GROW & EGG AND GROWING SCRATCH
(1956-57 Laying Year)



EGG PRODUCTION FOR A MARKET EGG STRAIN GROWN ON CONTROLLED COMPLETE GROWING PELLETS
(1956-57 Laying Year)



EXTRA EGGS PER BIRD FROM PULLETS REARED ON CONTROLLED FEEDING VS. FULL FEEDING



EXTRA INCOME PER BIRD FOR PULLETS REARED ON CONTROLLED FEEDING VS. FULL FEEDING

CUT SPREADING COSTS IN HALF . . .
DOUBLE SPREADING EFFICIENCY WITH
HI-WAY NEW LEADER
LIME and FERTILIZER
SPREADERS

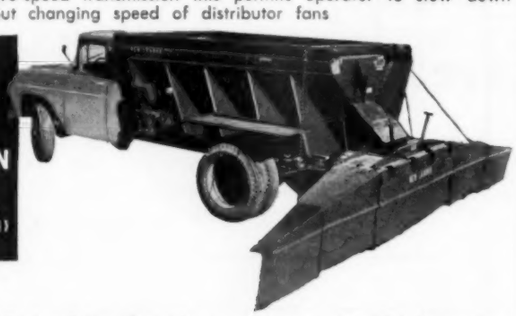
MODEL L42S
3 MATERIAL SPREADER

The Model L-42S Mobile Blender permits you to mix and spread any analysis of dry fertilizer your customer needs. Simply spreads three straight materials — nitrogen, phosphorus, and potash. The unit spreads all types of premixed dry fertilizer as well as straight materials. Separate Wisconsin Engine, 7.0 horsepower, (12.5 horsepower as optional equipment), drives distributor fans with NEW LEADER drive shaft drive for conveyor.

MODEL L19S
LIME SPREADER
(POWER TAKE-OFF DRIVEN)

The Model L-19S has 24" width conveyor with steep 45° angle side slopes. The unit features the famous NEW LEADER twin fan distributor assembly and does an excellent job spreading both lime and commercial fertilizer. When equipped with two-speed transmission this permits operator to slow down drag chain without changing speed of distributor fans

MODEL L32S
COMBINATION SPREADER
(ENGINE - DRIVEN)



The Model L-32S Engine-Driven Spreader is equipped with 12.5 horsepower gasoline engine to drive distributor fans, insuring constant width of spread regardless of truck engine speed. Famous NEW LEADER drive shaft drive synchronizes speed of conveyor chain to speed of truck over the ground. (The Model L-22S 7.0 horsepower engine also available.)

MODEL L52S
COMBINATION SPREADER
(HEAVY-DUTY)

The Model L-52S spreads up to 100' wide in one trip. This unit is designed for heavy applications of agricultural limestone or commercial fertilizer. It can be equipped with either a 24" or 30" wide conveyor. The Model L-52S can be powered from the power take-off of the truck transmission or from a 25 horsepower gasoline engine.

TERRITORIES IN THE FOLLOWING STATES ARE AVAILABLE:

Washington	Idaho	Montana	Colorado	Oklahoma
Oregon	Nevada	Utah	New Mexico	Arkansas
California	Arizona	Wyoming	Texas	Louisiana
			Kansas	Maine
				New York

Exclusive contracts will be awarded distributors in the above States. Write stating territory you cover, number of salesmen, and parts and service facilities available.

WRITE FOR FREE LITERATURE TODAY!

HIGHWAY EQUIPMENT COMPANY
632 D. Ave. N.W.
Cedar Rapids, Iowa

Poultrymen Told: If You Don't Organize Markets, "Businessmen" Will Do It

ITHACA, N.Y. — Poultry farmers attending Farm and Home Week at Cornell University were told that if they do not rise up and organize their own markets, "businessmen" will do it for them.

Earl F. Crouse, vice president of Doane Agricultural Service, St. Louis, told the group that the businessman has "no alternative but to organize the markets" if farmers do not do it themselves.

He predicted "the old marketing system" may be replaced by a new system of "free, competitive contracting" somewhat similar to assembly-line industries.

Following Mr. Crouse's talk a panel of professors and industry representatives took up the subject of contract farming. The program included another panel discussion on the "self-help plan" for the poultry industry.

Speaking about contract farming, Mr. Crouse said that regardless of the form in which the contracts appear, their function in the marketing system is the same. Farm producers, processors and distributors are working out arrangements designed to integrate the flow of agricultural products all the way from the farmer to the consumer.

Credit to Feed Industry

Mr. Crouse credits the feed industry for finally putting the contract farming idea together on a workable basis.

"They succeeded in breaking a deadlock between farmers on one side and processors on the other. This was done by pioneering in the development of a new system of financing in the broiler industry," he asserted.

"By so doing, the feed companies helped create an entirely new farm enterprise. Their selfish motive was that of finding a better market for their feed and poultry supplies. But that does no violence to the feed people. There had to be money in it for the farmer, the feed man and the processor or it would never have worked."

"The terminal markets grew up as a collection point for individual shippers from widely scattered points," the speaker explained. "They served well when groceries and meat were handled in small lots by small stores, but the large supermarket manager of today cannot afford to depend on such a hit-or-miss system to supply his needs. He must have more control over quality and quantity to make the most of his super store operation."

In indicating that the importance of the terminal is declining, Mr. Crouse referred to a Purdue University study showing that in 1940 more than 90% of the cattle fed in Indiana went through the central stockyards, but that 15 years later only about 56% went that route. He said that doubtlessly the percentage is less today.

"In Colorado a few weeks ago I was told on the best authority that 37% of the slaughter cattle now by-pass the yards, compared to 3% only three years ago.

"In the same period the percentage of prime cattle that bypassed the yards has gone up from 10% to 60%. The rumors were flying that a major packer was about to set up a range breeding program by artificial insemination and that the calves would be under some sort of contract from the date of conception."

Specification Buying

Mr. Crouse said "specification buying" is the term used to describe this new marketing system from the supermarket's point of view. He mentioned that this is now the dominant setup in the broiler industry, where birds are produced under specific contracts with processors, who in turn market direct to retailers.

He quoted Dr. G. Burton Wood, Oregon State College, as saying that the wholesaler may be the forgotten man within 10 years.

Mr. Crouse described the operation of the Poultry Producers of Central California, Sacramento. "Under the PPCC plan the farmer delivers his eggs to a central gathering point (or hires the co-op trucks to come to his farm), and from there the co-op does everything including the making of contracts with retail stores. Farmers own and operate both the processing and the distribution systems.

Middleman Eliminated

"They have eliminated all middlemen except the grocery store operation. This service costs the farmer 6¢ doz. In other words, the producer gets all but 6¢ of the price charged to the stores for bulk eggs delivered in 15 and 30 doz. cases," Mr. Crouse explained.

Referring to marketing competition, the speaker said, "If the co-operatives can do a better job, at less cost, than private industry, they can take over the marketing of all farm

First in feeding research

Land O'Lakes Sell the big exclusive—Land O'Lakes research! Feeds that have been tested again and again—improved again and again—and certified for higher nutritive efficiency by Anoka Research Farms.

Land O'Lakes Creameries, Inc.
2215 N.E. Kennedy • Minneapolis 13, Minn.

Dr. E. C. Stutts

JOINS VITREN—Vitren Corp., Ontario, Cal., vitamin pre-mix manufacturer, announces the addition of Dr. E. C. Stutts to the staff. He will be director of research and will be on call as nutrition consultant to Vitren's feed mill customers. Dr. Stutts received his bachelor's degree in agricultural science and his master's degree in animal husbandry and nutrition from Alabama Polytechnic Institute, Auburn. His Ph.D. in animal nutrition was received from the graduate school at Texas A&M College, College Station.

products. But if private industry can do it better, cheaper, put it in a more acceptable package or get it into the hands of the consumer first, they will have the privilege of handling the products of the farmer. Our debating the issue will not change the final outcome one bit."

Mr. Crouse referred to a statement made by the chief of the livestock and wool branch, Farmers Cooperative Service, U.S. Department of Agriculture, who said, in appraising the trends facing agriculture, "The livestock producer has three choices. First, he can go it alone and eventually get swallowed up by competition. Second, he can contract with a commercial organization and be paid some predetermined fee for his labor and equipment. Third, he can cooperate with fellow producers in an organization which he owns and controls, which performs for him all the necessary services in the production and marketing enterprise or whatever services the producer chooses to delegate to his cooperative. Under this arrangement he shares in whatever earnings are made in the whole category of integrated services."

Mr. Crouse mentioned that there continues to be a lot of trial and error in the application of new marketing concepts to agriculture.

"But, unless you as farmers take upon yourselves the responsibility of directing these adjustments you leave businessmen no alternative but to organize the markets for you," he said.

Better Sales Methods

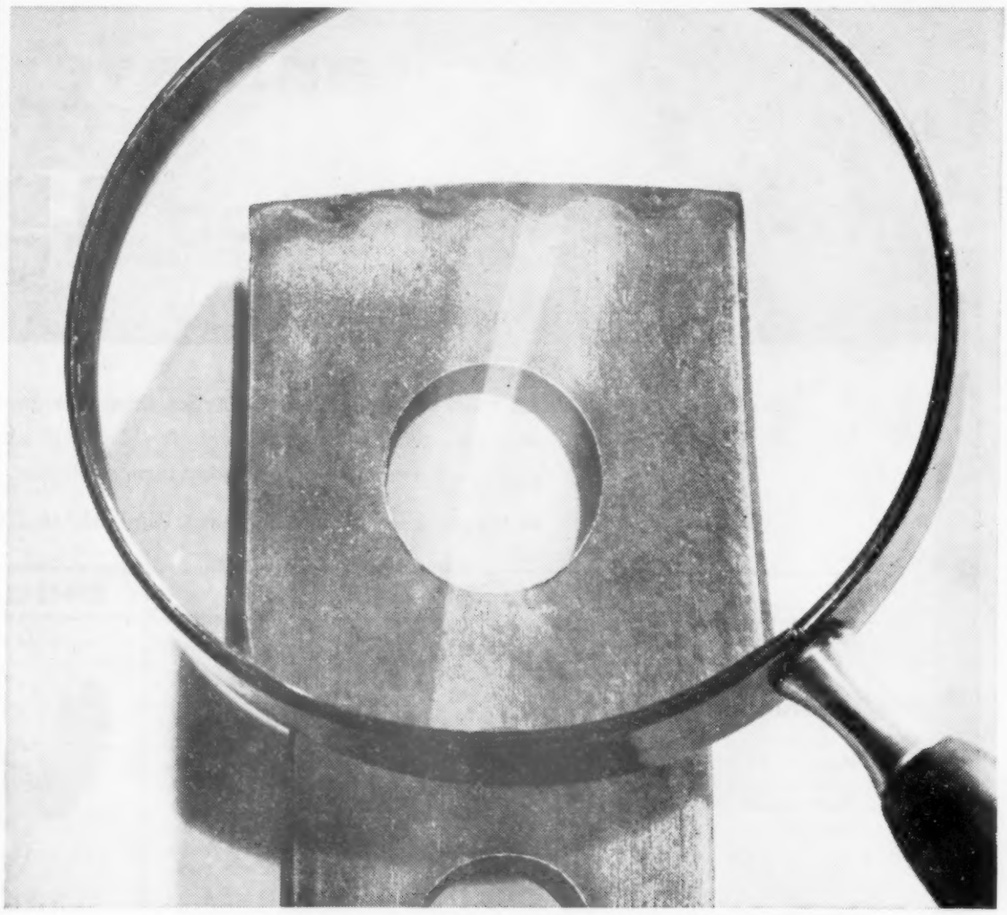
Another speaker, Joseph H. Fletcher, a Wentworth, N.H., poultry man known for his "self-help plan," called for a "complete overhauling" of the poultry industry's sales and procedures. He said the greatest possible area for increased efficiency and improved quality lies in the sales end of the business. Mr. Fletcher also reaffirmed his views that all marketing cooperatives in the Northeast should merge, with "the door open for others to join later."

He also called for attractive packaging and a good brand name. "Brand-name advertising, backed by quality merchandise, is the trick that has turned many a mediocre undertaking into a profitable enterprise," he declared.

"We are told to become more efficient and to expand our plants to

(Continued on page 14)

PACAL



New PACAL HAMMER
holds 50% more tungsten-carbide

Cut your grinding costs with new PACAL Hammers. Serrated-Head* design holds 50% more tungsten-carbide than conventional hammers. PACAL Hammers sharpen as they wear, hold their edge, cut cleaner. Last 25% longer than ordinary hard-faced hammers. You get more hours of quality grinding. You save on replacement costs.

There's a PACAL Hammer for your product and your hammermill. Call or write the Hammer Division.

*PATENT APPLIED FOR

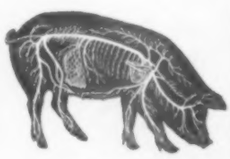
P&C PAPER, CALMENSON & CO.
County Road B & Walnut St., St. Paul 13, Minnesota
Telephone: Midway 6-9456

HAMMERS

NOW! a ration for and every ration a dual action PRO-

Don't sell more antibiotic protection than your growers—turkey, broiler, laying flock or swine—need! Recommend feeds fortified with levels of PRO-STREP designed to produce specific results under varying farm conditions.

Fit the ration to the farm. There is a PRO-STREP level for every ration—PROFITOPPER

	SWINE		CHICKENS *(Layer and Breeder Rations)*	
Penicillin		Penicillin is absorbed and carried through the blood stream to every part of the body to effectively check pathogenic, gram-positive organisms. Penicillin also stimulates feed consumption, enhances weight gains and feed conversion. Grower is able to market more uniform pigs.		Penicillin is absorbed into the bloodstream of the growing or mature bird. It is carried to every part of the body and is effective against harmful, gram-positive organisms. Penicillin is particularly helpful at times of stress in maintaining or increasing hatchability of fertile eggs.
Streptomycin		Effective for prolonged periods of time in the intestinal tract, streptomycin acts against the gram-negative bacteria so often responsible for bacterial enteritis ("necro"). *Streptomycin will not interfere with the action of beneficial intestinal flora.*		Streptomycin is slowly absorbed from the intestinal tract. It provides "crop-to-vent" protection against pathogenic, gram-negative organisms. Streptomycin will not interfere with the action of beneficial intestinal flora.
A PRO-STREP Level for Every Ration	**LOW LEVEL—25 Gm./ton.** Feed continuously to stimulate growth, improve feed efficiency, increase feed intake and promote better uniformity of gains. **MEDIUM LEVEL—50 Gm./ton.** Feed continuously until pigs are 50-75 pounds to: prevent bacterial swine enteritis; stimulate growth; improve feed efficiency; stimulate feed intake; and help promote better uniformity of gains. If outbreaks of enteritis occur, feeds containing 100 Gm. of PRO-STREP should be used. **HIGH LEVEL—100 Gm./ton.** To treat bacterial swine enteritis feed rations fortified with PRO-STREP for 4-5 days or until symptoms disappear. PRO-STREP at the 100 Gm. level also may be used until pigs are 50-75 pounds to: stimulate growth, improve feed efficiency, increase feed intake and assure better uniformity of gains.		**LOW LEVEL—25 Gm./ton.** Feed continuously as an aid in maintaining or increasing egg production and to stimulate growth and improved feed efficiency. In the presence of disease, rations containing 100 Gm. are recommended. **HIGH LEVEL—100 Gm./ton.** The following claims may be listed on your tags when PRO-STREP is fed at high levels to chickens: **a.** Reduce mortality and hasten recovery from C.R.D. **b.** Treat nonspecific infectious enteritis. **c.** Maintain feed intake and weight gains during C.R.D. and nonspecific infectious enteritis. **d.** Aid in maintaining or improving hatchability (of fertile eggs). **e.** Aid in maintaining or improving egg production. **f.** Prevent early chick mortality due to organisms sensitive to penicillin and streptomycin. **g.** Improve feed efficiency as related to egg production or weight gains. *Suggested feeding schedules:* **1.** Feed the first 10 days—then 3-5 days during, or immediately after, such stress factors as Newcastle disease or bronchitis vaccination, debeaking or housing pullets. **2.** Feed for the first 10 days and then for 3 days out of every week until birds are marketed. **3.** Feed continuously in case of disease outbreaks.	

MERCK & CO., INC. · CHEMICAL

Examine the **CLAIMS**—Check the **RESULTS**—
Compare the **COST** of PRO-STREP
with other broad-spectrum or single drug,
narrow-spectrum antibiotics.
You can't recommend a more effective
antibiotic supplement at less cost!

One Call—One Order—One Result—Customer Satisfaction
There is a Merck microingredient for your every formulation need. Ask the Merck Man about the complete line of antibiotics, vitamins, amino acids, multivitamin mixtures and coccidiostats with THE MERCK MARGIN OF SURETY!

©MERCK & CO., INC.

every need—
PROFITOPPER with low-cost
-STREP®

(A combination of two antibiotics —procaine penicillin and streptomycin sulfate—in a ratio of 1:3)

rations that will mean greater customer satisfaction and more repeat sales for you.

Here's how the dual action of Penicillin and Streptomycin in PRO-STREP helps to improve feed efficiency, fight disease and enhance growth in turkey, broiler, layer and swine rations. A Level for Every Need—Every Ration a PROFITOPPER!

CHICKENS *(Starter and Grower Rations)*

Penicillin is absorbed into the chick's bloodstream and carried to every tissue and organ in the body. Penicillin is effective against the gram-positive organisms. Many of the bacteria susceptible to penicillin are incriminated in secondary and subclinical infections in young chicks.
Penicillin also has a profound effect on stimulating growth, enhancing effective feed conversions and stimulating feed consumption.

Streptomycin is slowly absorbed from the intestinal tract. It provides "crop-to-vent" protection against harmful, gram-negative organisms. *Streptomycin will not interfere* with the action of beneficial intestinal *flora.*

LOW LEVEL—25 Gm./ton. Feed continuously to stimulate growth of chicks and to improve feed efficiency.

In presence of disease, recommend rations containing 100 Gm. of PRO-STREP.

HIGH LEVEL—100 Gm./ton. The following claims may be listed on your tags when PRO-STREP is fed at high levels to chickens:

a. Reduce mortality and hasten recovery from C.R.D. **b.** Treat nonspecific infectious enteritis. **c.** Maintain feed intake and weight gains during C.R.D. and nonspecific infectious enteritis. **d.** Aid in maintaining or improving hatchability (of fertile eggs). **e.** Aid in maintaining or improving egg production. **f.** Prevent early chick mortality due to organisms sensitive to penicillin and streptomycin. **g.** Improve feed efficiency as related to egg production or weight gains. *Suggested feeding schedules:*

1. Feed the first 10 days—then 3-5 days during, or immediately after, such stress factors as Newcastle disease or bronchitis vaccination, debeaking or housing pullets. 2. Feed for the first 10 days and then for 3 days out of every week until birds are marketed. 3. Feed continuously in case of disease outbreaks.

TURKEYS

Penicillin, absorbed into the bloodstream, affords maximum protection in all the tissues and organs of the body against the effects of gram-positive pathogens. Penicillin also is valuable in promoting economical weight gains in poults.

Streptomycin provides "crop-to-vent" protection against gram-negative organisms in the bird's intestinal tract. Slowly absorbed from the intestines, *Streptomycin does not interfere with the action of beneficial intestinal flora.*

LOW LEVEL—25 Gm./ton. For best results turkeys should be placed on low levels from hatching until they are 16-20 weeks of age. Low-level antibiotic rations will stimulate growth and improve feed efficiency. In the presence of disease, or on farms where the disease level is high, use rations containing 100 Gm. of PRO-STREP.

HIGH LEVEL—100 Gm./ton. At this level rations fortified with PRO-STREP will: treat bluecomb and infectious sinusitis; help maintain weight gains during outbreaks of these two diseases; prevent early mortality of poults due to organisms sensitive to either streptomycin or penicillin; help reduce losses following periods of stress such as vaccination, debeaking, chilling, moving, overheating; improve weight gains and feed efficiency in poults even in the presence of disease.

DIVISION · RAHWAY, NEW JERSEY

Do you know about GLYCAMIDE*?

Why not find out about adding GLYCAMIDE to your feeds—a new product of Merck. GLYCAMIDE is the universal coccidiostat for *broilers* and *replacement chicks* for laying and breeding flocks. It is the safest coccidiostat so far discovered.

*Trademark of Merck & Co., Inc. for glycarbylamide.

PRO-STREP

WITH THE MERCK MARGIN OF SURETY

APRIL IS ANIMAL HEALTH MONTH

Tuscarora Iodides Always Test Out

- *Positive Quality Control*
- *Regularly Exceeds Guarantees*
- *All Blends Mikro-Pulverized*
- *Stabilized and Free-Flowing*
- *Each Order Handled Right*

Everything at the new Tuscarora Plant is concerned with Potassium Iodide . . . 100 per cent of the time is given over to this essential trace element. RESULT: Products that are used and endorsed by some of the oldest and most experienced blenders in the business.

Tuscarora Chemical Works of Chittenango, N.Y., is the first producer to offer all Trace Mineral and Custom Blends with "T. P. C." . . . the sales plan with a bonus!

Samples and full details for the asking.

Manufacturers' Representative:

Gladwin A. Read Company

1604 CHICAGO AVE., EVANSTON, ILL.
PHONE: UNIVERSITY 4-0010

Also: Copper, cobalt, iron and zinc compounds. Vitamins D and K. Granulated, powdered and pigmented bentonites. Xanthophyll-carotenoid pigmenter for broilers and capons.

BURROWS MODEL 1200 BULK SCALE

Speeds handling ...Saves money!

price: **$295.00**
Complete — F.O.B. Plant

Built-in Fairbanks-Morse Scale saves costly delay at floor scales or hopper.

specifications

Capacity	1000 lbs.
Width	30"
Height	38"
Length of hopper	46"
Dump Gate	8"x14"
Front Wheels	10"x2½"

Rugged, practical, low-cost . . . this popular, efficient scale is built for long, hard use. Saves you time and money in handling all grains, feeds. Highly accurate, it weighs down to the ounce. Sharply-sloped bin, for complete discharge; rear-control dump gate; two-wheel foot brake. Rubber wheels and roller bearing casters make full-load handling easy, fast, simple.

Write for complete details . . . FREE CATALOG

BURROWS EQUIPMENT COMPANY

1316 C SHERMAN AVE.
EVANSTON, ILLINOIS

make up for lower profit margins," he said. "But just what do our advisers mean by efficiency? A close scrutiny of their advice would seem to indicate they are asking us to work longer hours and to increase our work load. But does this course make sense when the sales department is finding it difficult to dispose of that which we already produce?"

He stated that there is a great need to improve egg quality but that to do so will increase work load and costs. He said he had installed cooling equipment at a cost of over $500 to cover the requirements of a flock of 3,000. "We gather our eggs three times a day in cool weather and five times in warmer weather. For this I am paid a premium of ½¢ doz. This does not even cover my extra operating costs. My capital investment is lost," Mr. Fletcher said.

Feed Man Speaks

Jonathan S. Tobey, Shiremanstown, Pa., poultry specialist for the Quaker Oats Co., said that the business aspects of farming have been left in the wake of technological advances and that today many farms are in the same position that blacksmiths were 50-60 years ago.

He took issue with Mr. Fletcher, contending that improvements in egg quality, merchandising and promotion will not automatically result from "bigness or merger."

Need More Efficiency

"Any marketing or selling organization . . . cannot afford to associate with inefficient, poor production units," he stated. "This is a big problem which any self-help plan will face."

Mr. Tobey predicted the future will see "the majority of agricultural products, especially poultry and eggs, sold to a known market before they are raised or produced.

"In spite of all the talk in the Northeast about quality, not enough action and practical application of management practices necessary for top quality eggs have taken place," he declared.

Panelists who discussed contract farming were Prof. J. H. Bruckner (chairman), head of the poultry department, Cornell University; Prof. G. W. Hedlund, head of the agricultural economics department; W. D. Tyler, Curtice Brothers Co., Rochester, N.Y., and Warren Ranney, G.L.F., Ithaca.

Panelists dealing with the "self-help plan" were Mr. Tobey, Prof. O. F. Johndrew (moderator), J. C. Huttar, G.L.F., and Albert Cohen, Intercounty Farmers Cooperative, Woodridge, N.Y.

Dr. William G. Huber

JOINS PFIZER—Dr. William G. Huber has been added to the staff of the agricultural research and development center operated by Chas. Pfizer & Co., near Terre Haute, Ind. Dr. Herbert Luther, director of the center, said that Dr. Huber is assigned to the veterinary research group. For five years prior to joining Pfizer, Dr. Huber had his own veterinary practice in Illinois. He holds degrees from the University of Illinois, including a doctor of veterinary medicine degree from there. He has also completed class work required for a doctorate in veterinary pathology at Illinois.

Mark Edwards Joins Portland Grain Firm

PORTLAND, ORE. — Mark B. Edwards, formerly in the Minneapolis and New York grain markets, has joined the grain merchandising staff of Balfour Guthrie Co., Ltd., Portland.

Mr. Edwards is a grain industry veteran. He was educated in Minnesota and spent several years studying at the U.S. Marine Corps Institute, Washington, D.C.

Trithiadol
Glycamide
Nicarbazin
Nitrophenide
Arsanilic Acid
Sulfaquinoxaline
Calcium Salts
Trace Minerals
Vitamins
Fumigant Residues
Diethylstilbestrol

Doty

RUNS THESE TESTS

We are fully equipped with modern facilities for the tests of the new feed additives as well as protein, fat, fiber, etc. We check your feed potency regularly at low cost. Vitamin assays are a specialty with us.

USE OUR LABORATORY PROTECT YOUR QUALITY

With Our Low-Cost Ingredient Assay Plan

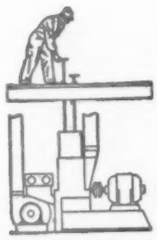
Your feeds can be labeled "Laboratory Controlled" at remarkably low cost to you. Write or call for full particulars.

Doty

LABORATORIES

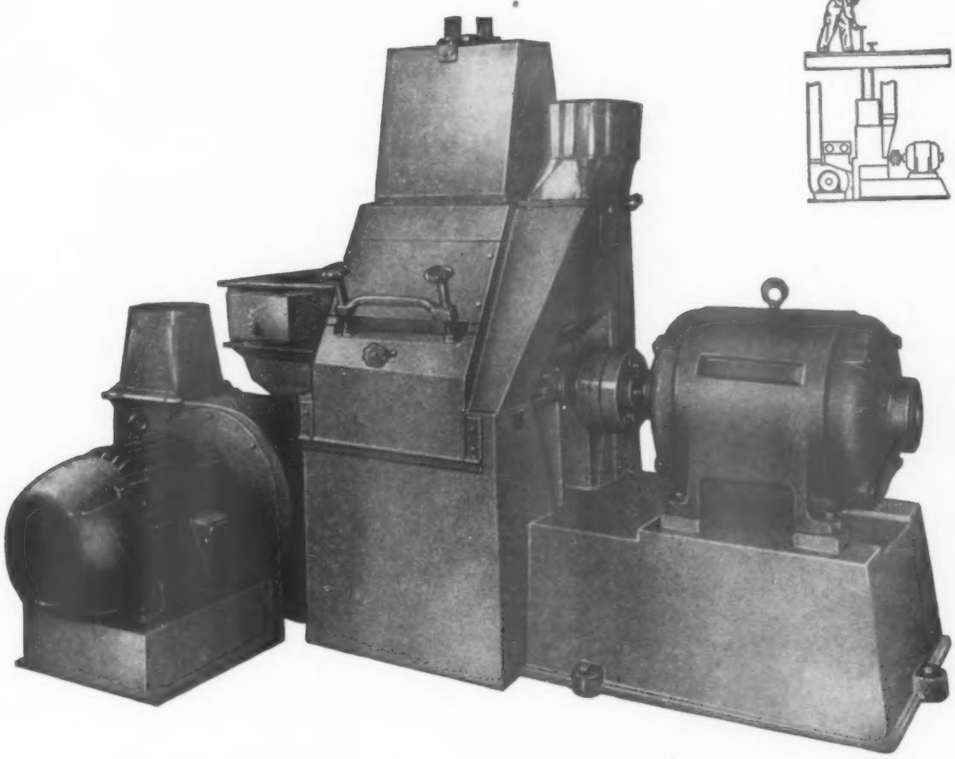
Cereal Technologists
1435 N. Clay St. GRand 1-8580
KANSAS CITY 16, MO.

Every Jacobson Hammermill Is Built for Keeps!



JACOBSON
INSTANT REMOTE SCREEN CHANGE
"MASTER"

PATENT NO. 2,640,650



"MASTER"—For Large Capacity Custom Grinding
65 To 140 H. P.

Send for New Bulletin and the Name of Your Jacobson Sales Representative

Jacobson MACHINE WORKS

48 Years of Continuous Service to the Feed Industry

1090 TENTH AVE. S. E. Dept. M. MINNEAPOLIS 14, MINNESOTA

J. H. LEFTWICH & CO., Inc.
BLACKSTRAP MOLASSES

Phone HEmlock 2-8771 Mobile, Ala. P.O. Box 78

Savannah, Ga. Jacksonville, Fla.
New Orleans, La. Corpus Christi, Texas
Tuscaloosa, Ala. Nebraska City, Neb.

Shipments by Rail Tank Car, Truck Transports and Barge

TEXAS MILL EQUIPMENT CO.
MILL FURNISHERS
ROLL GRINDING ROLL CORRUGATING
FOR FLOUR, FEED, RICE AND OIL MILLS
167 Payne St. • Dallas 7, Texas • Riverside 8-2795

Alabama Feed Sales Show Sharp Increase

MONTGOMERY, ALA.—Feed tonnage sold in Alabama during the month of February was up a booming 35% over the amount sold during the same month of 1957, a report from the Alabama State Department of Agriculture and Industries points out.

The increase was from 69,562.27 tons during February, 1957, to 94,105.30—a boost of 24,543 tons—in February, 1958.

Dairy feeds showed the biggest increase percentagewise—from 6,869.79 tons to 10,471.27. But poultry feeds were the biggest gainers in total volume. The increase was from 37,415.81 tons to a total in February, 1958, of 48,510.92.

Horse and mule feeds, hog feeds and cereal by-products were up only slightly, but oil meals and the category covering "all other feeds" were up by 28% and 36%, respectively.

Don Reed

SALES APPOINTMENT — Daycom, Inc., Minneapolis, manufacturer of Arid-Aire grain dryers, has appointed Don Reed, Sidney, Ohio, to handle the sale of the dryers in Ohio and southern Indiana. He will also supervise installation and service of the equipment. Associated with him in his work in southern Indiana will be Jack Brewer, Taylorville, Ill. Mr. Reed has been in the grain dryer business in the area for 10 years.

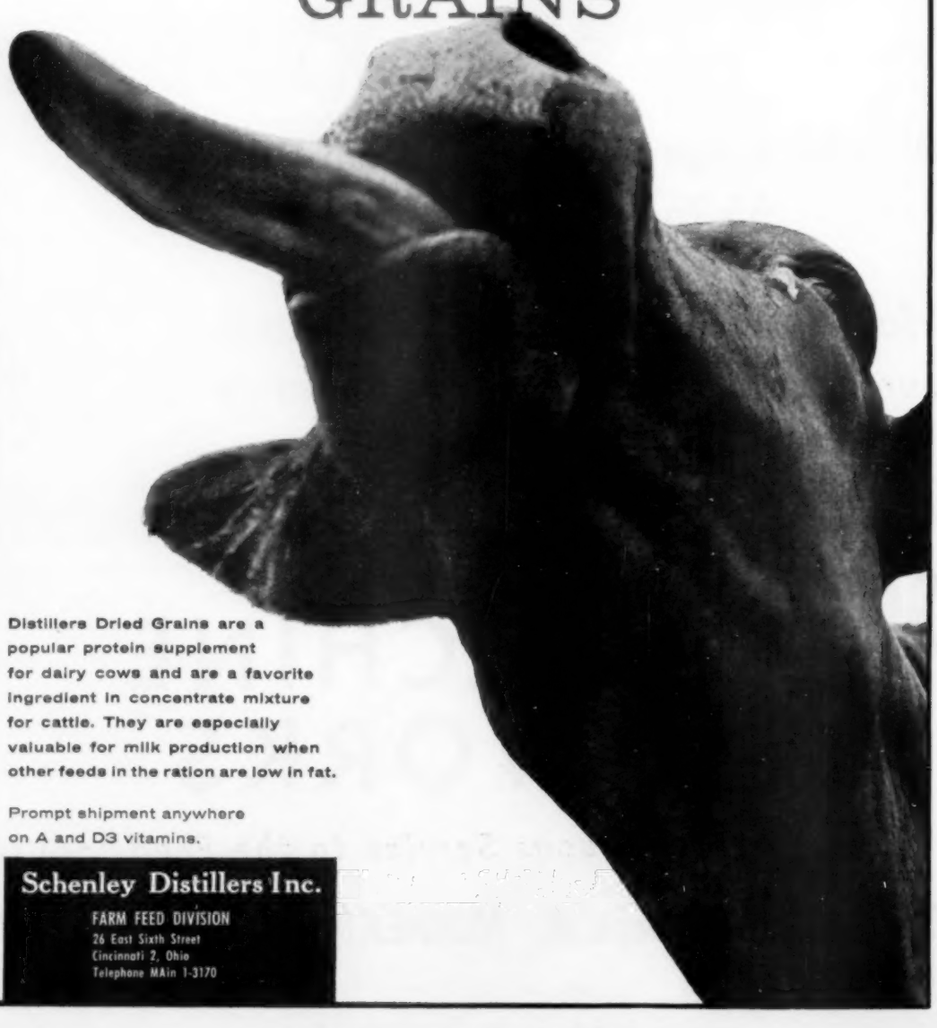
Canada Hog Numbers Show Sharp Increase

WINNIPEG—The number of hogs on Canadian farms March 1 increased 19% to an estimated 4,913,000 when compared with last year's March 1 total of 4,135,000, according to current figures released by the Dominion Bureau of Statistics. Estimates placed 2,645,000 on eastern farms, up 10% from a year earlier and 2,268,000 in the west, up 31%.

The bureau's report indicated a 21% increase in the number of winter litters (farrowing from Dec. 1-Feb. 28) to 204,500. Farrowing activity on eastern farms increased 14% to 125,500 litters from 110,200, while in the prairie provinces and British Columbia the total rose 33% to 79,000. Prospects are for an increase of 31% in the March-May farrowings to 428,500, compared with last year's comparable total of 326,800. Western Canada farmers are anticipating an increase of 38% while those in the East look for a 24% gain.

The bureau had estimated Dec. 1, 1957, that December-May farrowings would increase 23% compared to a year earlier, but the current survey indicates a gain of 28%.

BOY, OH BOY!
SCHENLEY
CORN
DISTILLERS
DRIED
GRAINS



Distillers Dried Grains are a popular protein supplement for dairy cows and are a favorite ingredient in concentrate mixture for cattle. They are especially valuable for milk production when other feeds in the ration are low in fat.

Prompt shipment anywhere on A and D3 vitamins.

Schenley Distillers Inc.
FARM FEED DIVISION
26 East Sixth Street
Cincinnati 2, Ohio
Telephone MAin 1-3170

WESTERN YEAST CULTURES

For 28 Years Have Been a Proven and Dependable Source of

ENZYMES
Now — New
WESTERN LIVE YEAST CULTURE 2-2-5
and
LACTO-ZYME

are even higher in digestive enzymes based on latest experimental data. These products carry a number of Enzymes, including Proteolytic (action on proteins), Amylolytic: Zymase, Maltose and Invertase (action on starches, sugars and fiber), Catalytic, Lactic Ferments and others.

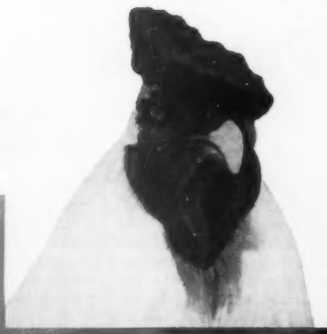
These Active Factors Can Be Added to YOUR FEEDS
At Little or No Extra Cost

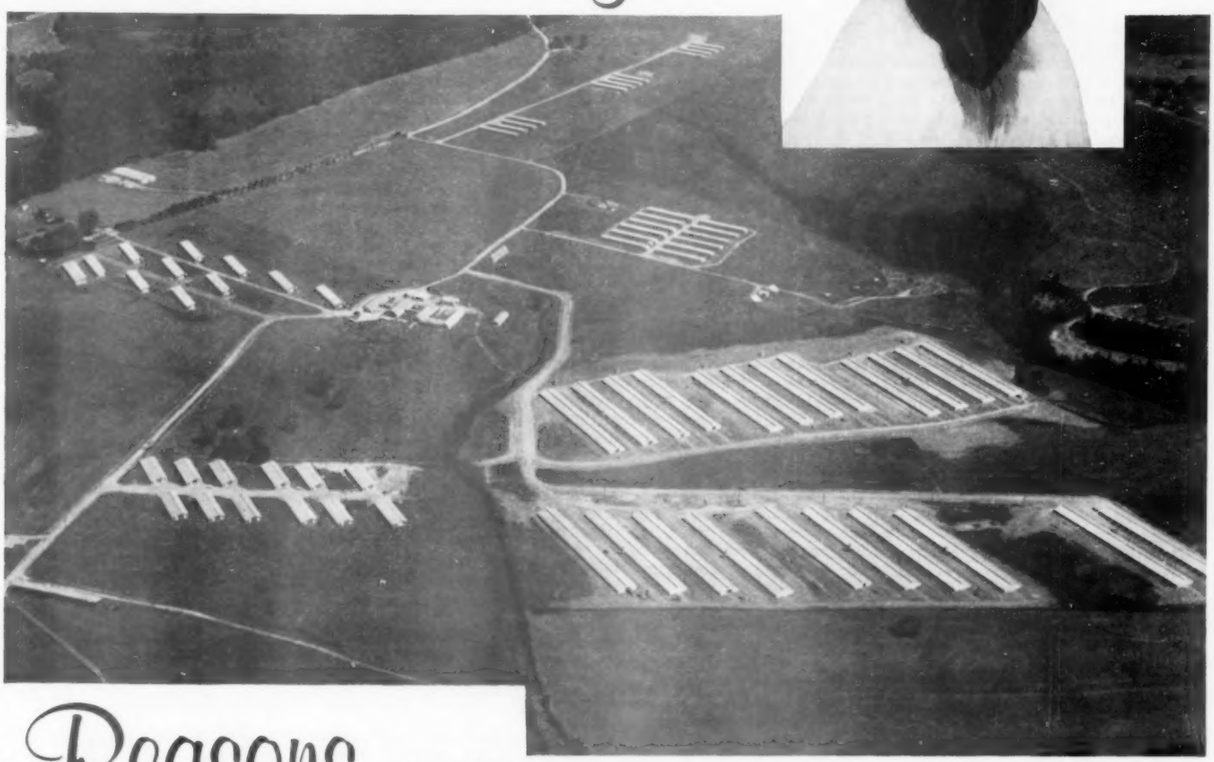
You will be hearing more and more about Enzymes in nutrition. Why not have them in your feeds now?

Write
WESTERN YEAST COMPANY
Chillicothe Illinois

Chas. Vantress Farms, Inc.

THIS PROGRAM MEANS Progress





SIX Reasons WHY!

1 Present Performance Leader

Chicks sired by Chas. Vantress males perform better in the nation's contests (our entries are field models), also under commercial conditions in the field. They grow better on less feed, live better and are more uniform, meatier, and yield a higher percent.

2 Unequaled Technical Breeding Development Program

Being one of the oldest meat breeding programs in the industry, it was started by Chas. Vantress in 1939. This same continuous progeny testing program with the new pedigree cross-testing program (added in 1954) is constantly at work on new developments for you. We and our customers believe this program will increase our margin of leadership.

3 Organized for Permanency

Chas. Vantress Farms is a permanent organization where the program will be carried on uninterrupted and unadulterated regardless of what happens to any one individual. This breeding team is organized to give you assurance of continuity so you can rely on it.

4 Unequaled Facilities to do a Breeding Job

Consisting of the most advanced type buildings and equipment, our completely modern plant at Duluth provides superb facilities for scientific breeding work to serve the broiler industry's progressive requirements.

We specialize 100% on male line breeding, preferring to cooperate with the leading female line breeders in joint programs. We prefer to use our total facilities for specilized male line breeding work. We encourage our customers to visit our farm at least once every year.

5 Better Service

The staff of Chas. Vantress Farms has an attitude of service to the industry. Distribution plants are set up regionally to give better, safer, delivery service. Our sales department is just as interested in service as sales. Our advertising is set up primarily as an aid to our customers.

6 Dedicated Spirit

As we grow our resources are used for your benefit as well as ours. When you buy a male from Chas. Vantress Farms you buy a stake in the future, in a better product next year and the next. You buy a stake in a program which will strengthen the meat chicken industry through improved breeding. Chas. Vantress Farms has a dedicated spirit to industry advancement. That's why you are helping us grow.

Especially For...

VO-AG TEACHERS & STUDENTS AND EXPERIENCED POULTRYMEN

This valuable material on The Chas. Vantress Program of Applied Genetics.

Write For Your FREE Copies.

Chas. Vantress Farms, Inc.

DULUTH, GEORGIA

CHAS. VANTRESS FARMS, INC. DULUTH, GA. DOMINANT WHITE MALE LINE

The Feeding of Geese and Their Potential in Meat Production

By Dr. Paul E. Waibel
University of Minnesota

Dr. Paul E. Waibel

EDITOR'S NOTE: Dr. Paul E. Waibel, poultry nutritionist at the University of Minnesota, St. Paul, points out in the accompanying article that among poultry, geese are the fastest growing, most efficient in feed conversion, practically free of disease and best as foragers. If young goose is cooked properly, it will appeal to the taste of most people, and with "junior geese," over-fatness is no problem. It should be easy to obtain most any degree of finish required. In view of these things, geese appear to have a real potential as a source of poultry meat—and consumers of feed. However, certain problems, such as poor reproduction, have to be overcome. In this article, Dr. Waibel discusses various aspects of goose production, including nutrition. He brings together available information on the growth and feeding of geese, and he points out both the opportunities and problems in expanded production of these birds.

That the domestic goose can obtain its nourishment from weeds or pasture supplemented by waste grain is well demonstrated. One hatcheryman has suggested to his customers that 100 goslings can be steered into this economical feeding program with just 100 pounds of good chick starting mash. He recommends that goslings be placed on tender succulent grass on their second day after hatching in suitable weather.

By nature, goslings are available usually only in the spring of the year, and the best market for geese is at Thanksgiving and Christmas. This allows considerably more time than necessary to produce the desired market size bird. Since many farmers having geese do not maintain great numbers, such goose production where rapid growth is unnecessary fits the weeding, scavenging and waste feed type of program.

Geese that are forced to rely on weeds or pasture for nourishment are usually thin or even emaciated. Since it is desirable to have a proper degree of finish when marketed, a special finishing period is administered. This may take advantage of waste grain in newly harvested fields or may be accomplished with special rations in finishing pens, as has been performed by various processors.

Many customers, such as special Jewish clientele, desire a holiday bird that is quite fat. They save the surplus body fat and drippings from roasting as a useful source of household fat and shortening. To many others, particularly young city housewives, geese are too fat, and this factor discourages repeat sales.

Feathers, particularly the soft, curved body feathers, are a valuable by-product of market geese. It is stated that goose feathers produce the warmest quilts and softest pillows. In Europe the body feathers are plucked from geese several times during the summer. In America, plucking of goose feathers from live geese has not been considered profitable.

An important use of geese is in the controlling of weeds, particularly in the southern and western parts of the country. Geese are efficient weeders of cotton, strawberries, onions, garlic and many other crops. Even difficult Johnson and Bermuda grasses can be controlled, particularly if geese are present at the young and tender growth stage.

As an example of the efficiency of geese as weeders, the Stahmann farm at Las Cruces, N.M., has used tens of thousands of geese as weeders of cotton and pecan orchards. This enterprise maintains breeding stock for production of goslings. Special processing equipment is used, and geese from these weeder projects have found their way into many market outlets. Since the geese can live mainly on weeds, except for a finishing period, it is obvious that they can be produced economically. (Weeder geese are frequently given a small daily ration of grain, the amount depending on weight gains and forage availability.) At the same time, they are performing valuable service as weeders. Weeder geese can be kept and sold as regular market geese in the fall or they can be processed in earlier life and sold as green (immature) geese.

Young Geese Are Good Gainers

In a paper by Milby and Henderson, the comparative growth rates of chickens, turkeys, ducks, geese and pheasants were studied. (Poultry Science, Vol. 16, pp. 155-165, 1937) Figure 1 (from this paper) illustrates clearly that young geese to the age of about eight weeks show a very fast growth rate, considerably greater than the other forms of poultry. After this fast growth phase a plateau is reached. Starting at about 20 weeks of age the goose again began gaining rapidly. This was during the fattening period. Ducks grew at a somewhat slower rate. The White Holland turkey began growth slowly, although it caught up to the goose at about 20 weeks of age.

Geese can be produced in two major ways. Either the grower can rely almost completely upon forage for nutrient, or the goose can be grown rapidly on a complete feeding program. In the former case gains are comparatively slow; with the complete feeding program gains are extremely rapid. It would seem that if the goose is to be a more important item in our economy, it should be produced in as few weeks as possible commensurate with good market quality. This would have to be by about 10 weeks of age, since geese go into a moult after this period and are not then completely feathered out until approximately 16 weeks of age.

Junior Geese

The late Prof. T. H. Canfield of the University of Minnesota was a chief proponent of the concept that geese might be marketed at the peak of this early growth phase. He didn't care for the term green geese, however, since the "green" term was used to describe ducks and also some older geese that served primarily as weeders. He therefore preferred the term "junior" goose. It is used to define rapidly grown market geese approximately 8-10 weeks of age.

Shown in Table 1 are some research results which illustrate the rapid growth and efficiency of feed utilization of the young goose. The experiment was completed at nine weeks of age, at which time the geese

(Turn to GEESE, page 74)

CONTINUING RESEARCH NEEDED

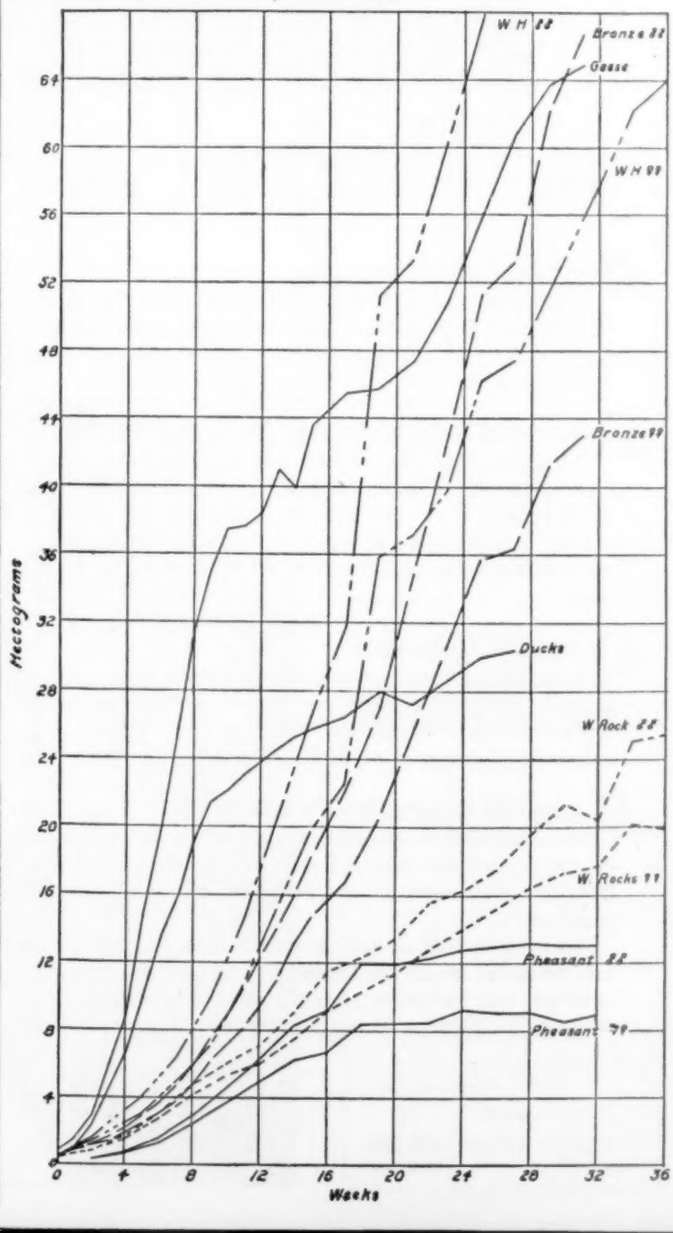
Continuing research is very important at this stage in learning to solve various problems limiting the production of both mature and junior geese. At present, it is believed, the Minnesota station is the only experiment station in the U.S. which is actively carrying on a balanced research program with geese. Unfortunately, the amount of goose research being conducted is decreasing due to increased costs of personnel and supplies within the poultry department. The department staff feels that the innate efficiency of geese as converters of feed and pasture to human food makes increased research with this bird challenging, desirable and necessary.

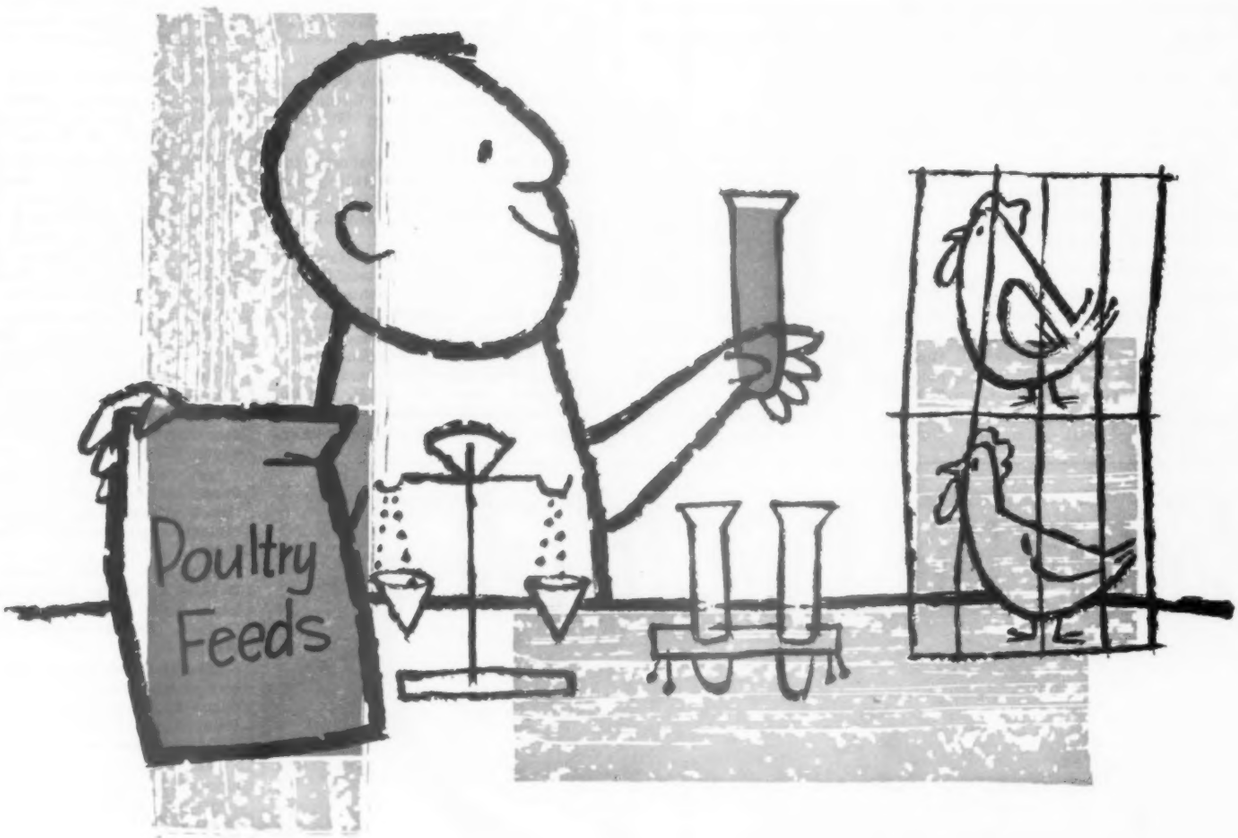
TABLE 1. Growth and Feed Utilization Data for "Junior" Geese*

Feeding program**	—3 Weeks— wt. lb.	FE		—6 Weeks— Weight lb.	F.E. 3-6 weeks	F.C. 0-6 weeks	—9 Weeks— Weight lb.	F.E. 6-9 weeks	F.C. 0-9 weeks
Conventional (See Table 2, Ration 2)	3.30	1.81	Pasture	7.58	2.17	1.97	9.8	4.38	2.59
			Confinement	7.21	2.62	2.25	9.9	5.10	3.01
High protein (See Table 2, Ration 5)	3.55	1.59	Pasture	7.89	2.87	2.20	10.0	7.00	3.34
			Confinement	7.90	3.64	2.47	9.8	7.73	3.48

*Data of Waibel and Canfield (unpublished).
**"Conventional" ration fed with whole corn, free choice, after 3 weeks. High protein was all-mash program. Pasture was oats. Emden goslings, data sex-averaged. F.E. is feed efficiency (feed/gain). F.C. is feed conversion (feed/animal weight).

FIGURE 1. The growth curves of Toulouse geese, White Pekin ducks, Bronze and White Holland turkeys, Ring-necked pheasants and White Plymouth Rock chickens, plotted on coordinate paper.





PROVEN NUTRITIONAL AVAILABILITY

That is the first requirement of all trace minerals in Morton Trace-Mineralized Mixing Salt...especially the Manganese and Iodine used in poultry feeds!

In Morton Trace-Mineralized Mixing Salt, the source of Manganese is Manganoferro Phosphate. The source of Iodine is Cuprous Iodide*. These trace elements, Manganese and Iodine, have been proven by the Armour Research Foundation to be in compounds that are most readily utilized by poultry. The Manganese, of course, is necessary to control the costly perosis or "slipped tendon" in poultry and the Iodine regulates thyroid activity.

When you use Morton Trace-Mineralized Mixing Salt you have the safeguard of that "extra-high" nutritional availability of trace minerals when it's needed —at no extra cost.

In addition to Trace-Mineralized Mixing Salt, Morton also makes Iodized Mixing Salt and extra-free-flowing Special Mixing Salt. Morton's nation-wide distribution enables you to get these products quickly anywhere in the United States.

**Cuprous Iodide is patented for use by the Morton Salt Company (pat. No. 2,772,167)*

Mail coupon for information on Morton Mixing Salts.

Morton Salt Company, Dept. F-412-
120 So. LaSalle St., Chicago 3, Illinois

Name_____

Company_____

Address_____

City_____

County_____ State_____

MORTON MIXING SALTS

IODIZED MIXING TRACE-MINERALIZED MIXING SPECIAL MIXING

CONVENTION CALENDAR

New Listings

For the convenience of readers who scan the Convention Calendar regularly for new listings, those added to the column in the current week appear ahead of the ones which have been entered previously. The following week they will be moved to their proper slot where they will remain until the event is held.

• • •

June 2-3 — Central Retail Feed Assn., Inc.; Hotel Schroeder, Milwaukee, Wis.; sec., Eldon H. Roesler, 1712 W. St. Paul Ave., Milwaukee, Wis.

Sept. 10-11 — Maryland Poultry Servicemens Conference; University of Maryland, College Park; chm., W. R. Rice, Poultry Department, University of Maryland.

1959

March 1-3 — Ohio Grain & Feed Dealers Assn., Inc.; Neil House, Columbus, Ohio; sec., G. E. O'Brien, 710 N. Ohio Street, Greenville, Ohio.

• • •

April 16—New England Branch of Poultry & Egg National Board; Framingham, Mass., Country Club; chm., Waldo W. Chick, Wells, Maine.

April 17-19—California Hay, Grain & Feed Dealers Assn., Ambassador Hotel, Los Angeles; sec., John F. Gilmore, 1400 10th St., Sacramento 14, Cal.

April 18—Nebraska Feeders Day, University of Nebraska, College of Agriculture campus, Lincoln; chm., Prof. William J. Loeffel, Department of Animal Husbandry.

April 19—Oklahoma State University Livestock Feeders Day; Oklahoma State University; Stillwater, Okla.

April 20-21-22—Nebraska Grain & Feed Dealers Assn.; Hotel Cornhusker, Lincoln; sec., Howard W. Elm, Trust Bldg., Lincoln, Neb.

April 20-23—National Fisheries Institute; Sheraton Palace Hotel, San Francisco, Calif.; chm., Mal Xavier, 1614 20th Street N.W., Washington 9, D.C.

April 23-24—Texas Feed Manufacturers Assn., Baker Hotel, Dallas, Texas; sec., Ben E. Schmitt, 528 Bewley Bldg., Ft. Worth, Texas.

April 24 — Arkansas Sheep Study Day; University of Arkansas, Agricultural Experiment Station, Fayetteville, Ark.; chm., Dr. P. R. Noland, University of Arkansas.

April 25—Indiana Cattle Feeders Day; Purdue University, Lafayette, Ind.; chm., Dr. W. M. Beeson, Department of Animal Husbandry.

April 25—Beef Cattle Day; Washington State College, Pullman; chm., Dr. I. A. Dyer, Department of Animal Science.

April 25-26—Texas Grain & Feed Dealers Assn.; Baker Hotel, Dallas, Texas; sec., Ben M. Ferguson, 614 Meacham Bldg., Ft. Worth, Texas.

April 28-30—Animal Health Institute; Shoreham Hotel, Washington; exec. sec., D. L. Bruner, 540 Des Moines Bldg., Des Moines 9, Iowa.

May 1-3 — Kansas Grain & Feed Dealers Assn.; Broadview Hotel, Wichita, Kansas; sec., O. E. Case, 609 Wiley Bldg., Hutchinson, Kansas.

May 2 — Georgia Broiler School; University of Georgia, College of Agriculture, Athens, Ga.; chm., James E. Murphy, University of Georgia.

May 4-5—Missouri Grain, Feed & Seed Assn.; Hotel Governor, Jefferson City, Mo.; sec., D. A. Meinershagen, Higginsville, Mo.

May 4-6 — National Cottonseed Products Assn.; Atlanta Biltmore Hotel, Atlanta, Ga.; sec., John F. Moloney, P.O. Box 5736, Memphis 4, Tenn.

May 7 — North Carolina Grain Dealers Assn.; Sir Walter Hotel, Raleigh, N.C.; pres., C. L. Revelle, Jr., Chas. L. Revelle & Sons, Murfreesboro, N.C.

May 11-16—Grain Elevator & Processing Superintendents; Hotel Pick-Nicollet, Minneapolis, Minn.; sec., Dean M. Clark, 1115 Board of Trade Building, Chicago 6, Ill.

May 18-20—Grain Processing Machinery Manufacturers Assn.; Hotel Sherman, Chicago, Ill.; sec., Raymond J. Walter, 551 Fifth Ave., New York 17, N.Y.

May 19—Des Moines Feed & Grain Club Field Day; Des Moines Golf & Country Club; chm., Bill Rogerson, 1901 E. Euclid Ave., Des Moines 13, Iowa.

May 21-23—American Feed Manufacturers Assn.; Morrison Hotel, Chicago; sec., W. T. Diamond, 53 W. Jackson Blvd., Chicago 4, Ill.

June 1-3—Indiana Grain & Feed Dealers Assn., mid-summer convention; French Lick-Sheraton Hotel, French Lick, Ind.; exec. sec., Fred K. Sale, 600 Board of Trade Bldg., Indianapolis, Ind.

June 8-10—Eastern Federation of Feed Merchants; Whiteface Inn, Whiteface, N.Y.; exec. dir., Austin W. Carpenter, Box 66, Sherburne, N.Y.

June 9-11—Association of Southern Feed & Fertilizer Control Officials; Heart of Atlanta Motel, Atlanta, Ga.; sec.-treas., Bruce Poundstone, University of Kentucky, Lexington, Ky.

June 10-12 — Alabama Poultry Industry Assn.; Auditorium, Birmingham, Ala.; exec. sec., W. L. Walsh, P.O. Box 567, Montgomery, Ala.

June 10-13—Northeastern Poultry Producers Council Egg Quality School; Rutgers University, New Brunswick, N.J.; chm., Alfred Van

Now is the time to sell

thram™

ANTI-PICKING SPRAY FOR POULTRY

Proved effective on Millions of Chickens... all breeds, all ages!

This is the season . . . during the spring and summer months . . . when picking is at its worst! And when profits from selling THRAM are biggest and best!

To create demand unmatched by any poultry product you ever sold, Penick's year-round national farm paper advertising for THRAM has been dynamically increased during the peak season.

Counter displays, window streamers, ad mats, literature . . . all are ready *now* to help you capitalize on the tremendous demand.

Don't lose sales while you wait for rush shipments! Check your stocks of THRAM today . . . then order from your regular distributor to be *doubly* sure your customers' needs are covered. You'll be glad you did!

NATIONAL ADVERTISING TRIPLED!

THRAM is consistently promoted in these farm and poultry magazines:

Poultry Tribune
American Poultry Journal
Everybody's Poultry Magazine
The Poultryman
Broiler Growing
Farm Journal
Progressive Farmer
Missouri Ruralist
California Farmer
Pennsylvania Farmer
Capper's Farmer
Wallaces' Farmer and Iowa Homestead
Farm and Ranch—Southern Agriculturist
Farmer-Stockman
Georgia Farmer
Ohio Farmer
Minnesota Farmer
Rural New Yorker
American Agriculturist
Hatchery and Feed
Feedstuffs
Western Feed and Seed
Farm Store Merchandiser
Drug Topics
County Agent & Vo-Ag Teacher

AVAILABLE IN
12 x 1 pints
12 x 1 quarts
4 x 1 gallons

PENICK

Agricultural Chemical and Insecticide Division

S. B. PENICK & COMPANY 50 CHURCH ST., NEW YORK 8 • 735 W. DIVISION ST., CHICAGO 10

Fleischmann's F·I·D·Y

IRRADIATED DRY YEAST

RICH IN VITAMIN D FOR FOUR-FOOTED ANIMALS

SINCE 1895

Headquarters for Flavors for Animal Feeds and Veterinarian Remedies. Tell us your problem.

MAGNUS, MABEE & REYNARD, INC.

16 Desbrosses Street, New York 13, N. Y.
221 North LaSalle Street, Chicago 1, Ill.

CALENDAR FOR 1958-59

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Wagenen, 10 Rutgers Place, Trenton 8, N.J.

June 16-18—American Association of Feed Microscopists, Chateau Laurier, Ottawa, Canada; sec., G. M. Barnhart, Missouri Department of Agriculture, Jefferson City, Mo.

June 16-18—Tri-State Hatchery & Field Agents School; Poultry Science Department, Purdue University, Lafayette, Ind.; chm., David D. Jackson, extension poultryman.

June 17-19—Western Poultry Congress; Santa Rosa, Cal.; sec., Willard A. Smith, P.O. Box 307, Baldwin Park, Cal.

June 19-20—Purdue Poultry Service & Salesmen's Clinic; Poultry Science Department, Purdue University, Lafayette, Ind.; chm., David D. Jackson, extension poultryman.

June 26-28 — Delmarva Chicken Festival; Denton, Md.; chm., John Asher, R.F.D. No. 2, Box 35-A, Georgetown, Del.

June 27-30—Canadian Feed Manufacturers Assn.; Murray Bay, Quebec; conv. sec., Rachel Beauchamp, 110 St. Paul Street, East, Montreal, Canada.

June 28-July 1—Georgia Feed Assn.; General Oglethorpe Hotel, Wilmington Island, Savannah, Ga.; sec.-treas., Will L. Kinard, 3240 Peachtree Rd. Bldg., Atlanta 5.

July 8-9—Cornell Poultrymen's Get-Together; Cornell University, Ithaca, N.Y.

July 18-19—Kansas Seed Dealers Assn., Hotel Broadview, Wichita, Kansas; sec., O. E. Case, 609 Wiley Bldg., Hutchinson, Kansas.

July 22-25 — American Poultry & Hatchery Federation; Cleveland Auditorium (Ohio); convention mgr., Ed G. Gray, 521 E. 63rd St., Kansas City 10, Mo.

Aug. 8-9 — North Carolina Feed Manufacturers Assn.; Grove Park Inn, Asheville, N.C.; sec., A. W. Koon, Box 1664, Spartanburg, S.C.

August 18-19 — Kentucky Feed & Grain Assn.; Campbell House, Lexington, Ky.; sec., F. H. Schardt, 4325 Alicent Road, Louisville, Ky.

Sept. 7-8—Grain & Feed Dealers National Assn., Sheraton-Jefferson Hotel, St. Louis, Mo.; chm., Alvin E. Oliver, 600 Folger Bldg., Washington 5, D.C.

Sept. 7-9—Louisiana Poultry Improvement Assn.; Jung Hotel, New Orleans, La.; sec., Clyde Ingram, University Station, Baton Rouge, La.

Sept. 17-19—National Feed Ingredients Assn., Congress Hotel, Chicago, Ill.; sec., Peter W. Janss, 212 Equitable Bldg., Des Moines, Iowa.

Sept. 25-26 — Arkansas Formula Feed Conference; University of Arkansas, Fayetteville, Ark.; chm., Prof.

(Continued on page 24)

NOW..! LOAD or UNLOAD BULK FEED
with the **PAMCO BACK SAVER**

Attach this inexpensive AUGER UNIT to a grain box and you can handle any feed in bulk!

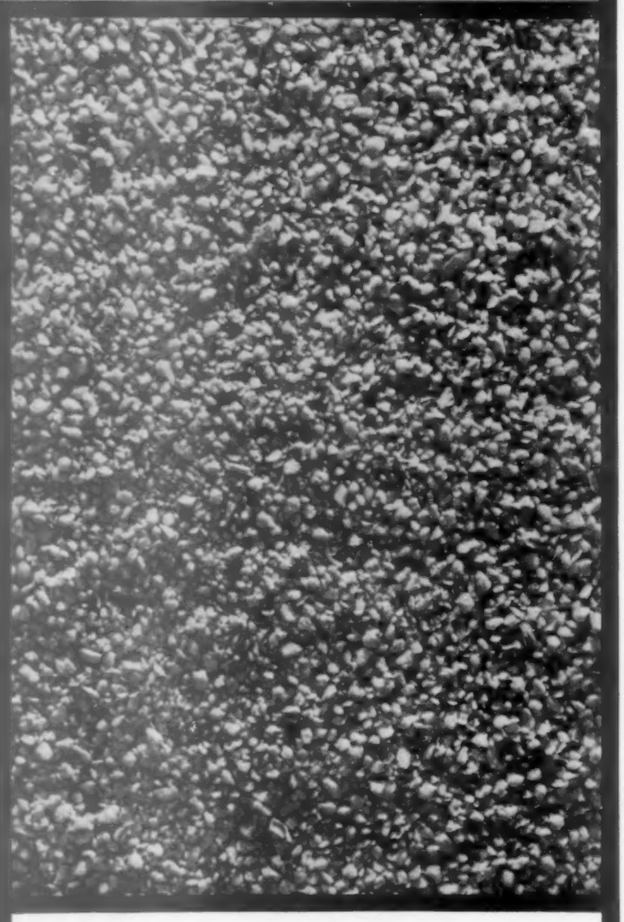
- Ideal for hoist trucks
- Complete hydraulic operation
- Can load as easily as unload
- Will handle bulk feed grain or pellets
- Minimum breakage of pellets

Conversion units can be mounted on your present grain box.

For Complete Information Write:

PRODUCTIVE ACRES MFG. CO.
KEOTA, IOWA PHONE: ME 63071
OTHER INSTALLATION POINTS: Delphi, Indiana; Cheraw, Colorado, and Portland, Oregon

For specialty feeds:
HONEYMEAD
Lecithinated
Soybean Oil Meal



Lecithinated Soybean Oil Meal is becoming of increasing importance in formulating specialty feeds for poultry and livestock. It is made by blending soybean oil meal with lecithin, a soybean product containing amounts of choline and inositol, two vital aids in proper nutrition.

Look to Honeymead for a complete selection of soybean products.

- 44% Soybean Oil Meal
- Lecithinated Soybean Oil Meal
- Hi-Energy Soybean Oil Meal
- Soybean Pellets
- Soybean Mill Feed
- Soy Flour

Telephone: Mankato 791 TWX 541

Honeymead
PRODUCTS COMPANY MANKATO, MINNESOTA
Soybean processors and refiners serving agriculture and industry

FEED
SAVE WAY
FEEDS
SAVE WAY FEED MILLS
CHICKASHA, OKLAHOMA
Branch Locations:
BROKEN ARROW, OKLAHOMA • HICO, TEXAS
PILOT POINT, TEXAS • FORT WORTH, TEXAS

CYANAMID

Helps you sell more cattle feeds

$11.53 more per head with Aureomycin®

...that's the net profit shown in new controlled creep feed experiment

ANIMAL FEED DEPARTMENT · FARM AND HOME DIVISION

$11.53 MORE PER HEAD
with AUREOMYCIN in creep feeds

This month—next month—and for several months thereafter—it'll be creep feeding time for young beef calves. Why not make sure your customers get the *most out of their calves* by creep feeding AUREOMYCIN Chlortetracycline?

It pays! Latest controlled experiment showed that the average daily gain of calves creep fed AUREOMYCIN was .39 of a pound more than the "control" group.

At the end of the 140-day feeding period, calves creep fed AUREOMYCIN averaged 54.4 more pounds per head! Cost of feeding AUREOMYCIN was less than ¾ of a cent per head per day. When sold, the group fed AUREOMYCIN brought a net extra income of $11.53 per head.

Incorporate AUREOMYCIN in your calf creep feeds. Recommend it! Send for your free supply of leaflets for distribution to your customers.

AMERICAN CYANAMID COMPANY · NEW YORK 20, N.Y.

E. L. Stephenson, Department of Animal Industry and Veterinary Science.

Oct. 7-9—Northeastern Poultry Producers Council Poultry Exposition and Convention; Farm Show Bldg., Harrisburg, Pa.; chm., Alfred Van Wagenen, NEPPCO, 10 Rutgers Place, Trenton 8, N.J.

Oct. 8-10—Texas Nutrition Conference; Texas Agricultural and Mechanical College; College Station, Texas; chm., J. R. Couch, Poultry Science Dept.

Oct. 14-16 — Association of American Feed Control Officials; Shoreham Hotel, Washington, D.C.; sec., L. E. Bopst, University of Maryland, College Park, Md.

Oct. 16-17 — Oklahoma Formula Feed Conference, Oklahoma State University, Stillwater, Okla.; chm., Dr. Rollin H. Thayer, Poultry Science Dept.

Oct. 20-21—California Animal Industry Conference, Fresno Memorial Auditorium, Fresno, Cal.; sponsored by University of California and California Hay, Grain & Feed Dealers Assn.; sec., John Gilmore, 1400 10th St., Sacramento, Cal.

Oct. 23-25—Nutrition Conference, Alabama Feed Assn.; Alabama Polytechnic Institute, Auburn, Ala.; chm., Merlin T. Bryant, Brundidge Milling Co., North Main St., Brundidge, Ala.

Nov. 2-5 — National Renderers Assn., Hotel Statler, Washington, D.C.; sec., Miss Jamie C. Fox, 30 N. La Salle St., Chicago 2, Ill.

Nov. 12-14—Midwest Feed Production School; American Royal Bldg., Kansas City; sponsored by Midwest Feed Manufacturers Assn.; exec. vice president, Lloyd S. Larson, 20 W. 9th St. Bldg., Kansas City 5, Mo.

Nov. 13-14—Cornell Nutrition Conference; Hotel Statler, Buffalo, N.Y.; chm., Prof. Charles Chance, Wing Hall, Cornell University, Ithaca, N.Y.

Nov. 14—Midwest Custom Milling School; American Royal Bldg., Kansas City; sponsored by Midwest Feed Manufacturers Assn., exec. vice president, Lloyd S. Larson, 20 W. 9th St. Bldg., Kansas City 5, Mo.

1959

Jan. 26-28 — Southeastern Poultry & Egg Assn., Atlanta, Ga.; sec., Harold E. Ford, 235 E. Ponce de Leon Ave., Decatur, Ga.

Feb. 12-13 — Washington State Feed Assn.; Leopold Hotel, Bellingham; mgr., J. G. Wilson, 814 Second Ave. Bldg., Seattle, Wash.

Feb. 22-24—Colorado Grain, Mill & Feed Dealers Assn.; Shirley Savoy Hotel, Denver, Colo.; sec., R. B. Kelley, 714 Cooper Bldg., Denver 2, Colo.

March 11-13—Midwest Feed Manufacturers Assn.; Hotel Shamrock Hilton, Houston, Texas; exec. vice president, Lloyd S. Larson, 20 W. Ninth Street Bldg., Kansas City 5, Mo.

RATH NAMES MANAGER

WATERLOO, IOWA — Max Lowcock, Waterloo, has become manager of the feed department of Rath Packing Co. here.

Report New Process For Degossypolized Cottonseed Meal

COLLEGE STATION, TEXAS — Scientists of the Texas A&M College System have reported discovery of a new low-cost process for making degossypolized cottonseed meal for use in feeds.

It was noted that preliminary feeding tests with approximately 100 chickens have been satisfactory.

Announcement of the process was made by A. Cecil Wamble, head of the cottonseed products research laboratory of the Texas Engineering Experiment Station. He said it results from research by S. P. Clark, engineer, and Dr. B. D. Ceason and Dr. W. W. Meinke, chemists, all of the engineering experiment station staff.

The basic principle of the new process is that of adding a small quantity of a chemical to the cottonseed during processing to bring reaction with the gossypol to form a compound which is soluble in the oil; or in the case where oil is extracted by use of a solvent, to form a compound soluble in the oil-solvent mixture.

The chemicals which have been tested that meet these requirements best are certain amines. When they are used, the gossypol reacts with the amines in preference to reacting with amino acids of the proteins in the cottonseed. The proper amines are chosen, the compounds formed between the amines and the gossypol are soluble in the oil and are removed from the cottonseed meal when the oil is extracted or pressed out. The oil thus produced requires special treatment during degumming or refining in order to remove the amine-gossypol compounds from the oil.

Where solvent extraction is not employed in processing, most of the amine-gossypol compound can be removed by pressing it out with the oil.

The scientists said the cost of octyl amine, one of the amines used, is 65¢ lb. The cost of the material at this rate for producing one ton of improved cottonseed meal would be about $3.30 if none is recovered. Some of the other amines cost about half as much.

DAIRY PASTURE CONTEST

GAINESVILLE, FLA.—More than 1,200 dairymen have been invited to participate in the fifth annual dairy pasture contest being sponsored by the University of Florida extension service with the cooperation of the Florida Dairy Assn.

. . . right from the heart of the Midwest Feed Area!

Kansas City! That's the home of our newest multiwall bag plant. Another convenient plant in Toledo, too. You'll like the kind of packaging service they offer you because it's *fast*.

We're practically at your doorstep . . . can *guarantee* on-time delivery via truck or rail. Extensive facilities enable us to handle even your most urgent needs.

St. Regis bags are designed for maximum brand and product identification. Use of top-quality kraft and printing equipment assures clear, crisp reproduction that pays off.

Highly skilled St. Regis sales engineers are ready to help you in any phase of your packaging operation. To avail yourself of St. Regis special services, call your nearest St. Regis multiwall bag representative.

MULTIWALL PACKAGING DIVISION
St.Regis PAPER COMPANY
150 EAST 42nd STREET, NEW YORK 17, N.Y.
PULP · PAPER · PACKAGING · PLASTICS · PLYWOOD · LUMBER

ST. REGIS PLANTS READY TO SERVE YOU — KANSAS CITY, MISSOURI · TOLEDO, OHIO · PENSACOLA, FLORIDA · FRANKLIN, VIRGINIA · NAZARETH, PENNSYLVANIA · LOS ANGELES, CALIFORNIA · SAN LEANDRO, CALIFORNIA · TACOMA, WASHINGTON

Fleischmann's F·I·D·Y
IRRADIATED DRY YEAST
RICH IN VITAMIN D FOR FOUR-FOOTED ANIMALS

CONSULTANTS
TO THE
FEED INDUSTRY
C. W. SIEVERT and ASSOCIATES
221 N. LaSalle St. Room 1339 Chicago 1, Ill.

Serving the Milling Industry A
Complete Line of Quality Grain
Processing Machinery
for Over a Century.
B&L
BARNARD & LEAS Manufacturing Company INC.
CEDAR RAPIDS, IOWA

CORONET Granular DIKAL

Improves HANDLING

In new granular form, Coronet DIKAL is easy to handle in bags or in bulk. It flows freely in all types of mixing equipment. Consistent particle size assures dispersion with other feed components.

Coronet DIKAL is a premium quality product . . . yet actually costs less per unit of usable phosphorus than most lower-priced feed supplements. *It is all biologically available.*

Since Texas City is the only dicalcium production point west of the Mississippi River, midwest and western feed manufacturers, particularly, benefit from faster, more dependable delivery by rail or private truck service.

Let us figure the cost of Granular DIKAL delivered to your plant

DIKAL CORONET DICALCIUM PHOSPHATE

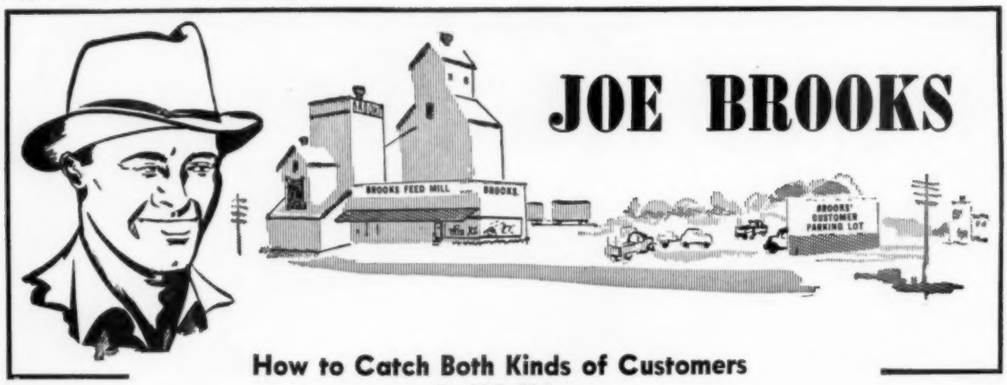
DIKAL is produced by Texas City Chemicals, Inc., under the management of

Coronet Phosphate Company

NORFOLK 1, VIRGINIA

A DIVISION OF SMITH-DOUGLASS COMPANY, INCORPORATED

SD SMITH-DOUGLASS



How to Catch Both Kinds of Customers

By Al P. Nelson

It was raining heavily that spring day and trade was very light. Just before the Brooks mill closed for the day, Butterball Barlow and Mike Higgins, two of Joe's employees, entered his office.

They seemed a little nervous, but Joe's smile quickly dissipated their fears. "Hi, boys, what is it?"

Butterball cleared his throat. "W-well, Joe," he said, "Mike and me have been havin' a little trouble on turnin' in ideas for the contest you set up some weeks ago. We couldn't get any ideas until we teamed up. Can we turn in one idea and both get credit?"

Joe chuckled. "Well, I don't see why not, fellows. After all, it's the idea that counts, no matter how many fellows had a hand in it. And if you are willing to split the prize—if you are awarded a prize—that's perfectly all right."

Butterball is Glad

Butterball flashed a big boyish smile. "You see, Mike, it worked. I told you it would."

Mike Higgins grinned and scratched his thick mop of brown hair. "I'm sure glad it did. I'm the sort of guy who can't think unless he works with somebody else. By myself, I can't get an idea."

"Well," Joe said, "a lot of people are that way. Through communication with others, however, they come up with valuable ideas. What is your idea, boys?"

Again Butterball cleared his throat. "Well, Joe, it takes a little explaining. Do-do you think there are some people that don't like to be told not to do something?"

Joe laughed and leaned back in his swivel. "I should say so. Some people are just plain ornery that way. My wife, for example, doesn't like to be told what not to do. I'm safe in saying that, because she isn't here right now. And then there are people who say 'I don't care if I do.' They are in between."

Butterball and Mike Higgins exchanged quick glances. "Hey," said the former, "we never thought of that kind of person. Gosh, what are we gonna do about him?"

Joe Wants to Know

"Don't worry about him," Joe counseled. "Just tell me about your idea."

"Well, Joe, you've got lots of bulletin boards around here, haven't you?" asked Butterball.

Joe nodded. "Yes, we've got one listing prices of feeds. We've got a for sale and exchange board for customers, and we've also got an employee bulletin board."

Butterball was smiling. "Yes, yes, Joe. But Mike and I figured that you could use a 'Do' and a 'Don't' board, too."

"A 'Do' and a 'Don't' board!" Joe echoed. "What in the world is that?"

An Explanation

Butterball looked surprised that Joe did not understand what he meant. "Why, a 'Do' and a 'Don't' board, Joe, is just a special bulletin board where you tell a farmer what things to do and those it don't pay to do."

Joe chuckled. "Say, that sounds interesting. I've never heard of a board like that."

"Butterball and I never heard of it either," Mike Higgins spoke up. "We dreamed it up over coffee at Happy's one night in a booth. I guess we must have had six cups of coffee each of us before the idea came out. Boy, were we excited. Even Happy thought it was a good idea."

"Well, that's interesting," said Joe. "Happy's a good businessman—he knows the score."

Butterball was unfolding a piece of paper. "On that 'Do' and 'Don't' board, Mike and me figured we could suit the fellow who don't like to be

---

SW

SPROUT-WALDRON Pointers

for Mixing and Blending • Size Reduction
Size Classification • Bulk Materials Handling • Pelleting and Densifying

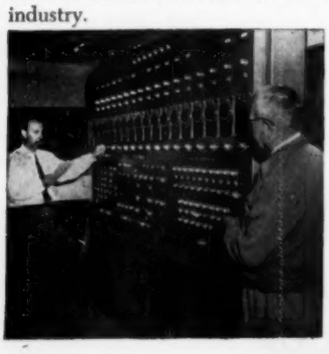
Published in the interest of better processing by Sprout, Waldron & Co., Inc., Muncy, Penna.

98% BLENDING EFFICIENCY IN TWO MINUTE MIXING CYCLE

Dispersion studies to determine the efficiency of blending with the use of riboflavin in a Sprout-Waldron Horizontal Mixer were conducted by Inter-County Co-op., Woodridge, New York. The procedure consisted of taking a sample of mixed feed from the mixer and then adding amounts of riboflavin and taking other samples after mixing for one, two, three and four minutes.

Samples taken after two minutes of mixing indicated 98% efficiency of blending with no material difference noticeable after three or four minutes. To be on the safe side, Inter-County has adjusted their production to a three minute cycle although almost total efficiency of distribution is obtained within the first two minutes.

The batching procedure at Inter-County is automatic, controlled through a Richardson Select-O-Weigh Batching panel. Sprout-Waldron processing and design engineering combined with Sprout-Waldron unit machinery make this 45 ton per hour feed mill one of the most automatic and efficient in the industry.



FLORIDA FEED MILL ON WAY UP

Behind the big builders sign in the Florida sands is a story of another modern feed mill designed by Sprout-Waldron planning engineers. This one is being built for Hector Supply Company, Miami, Florida . . . and it features the latest in pneumatic handling and unit machinery.

A 28" Pneu-Vac System will pick up from rail cars or bulk trucks and pass the material through a receiving cleaner to an airlock feeder. It will then be conveyed by positive pressure into Butler Storage Tanks. Individual feeder screws on each bin will convey the material to a 3 ton scale hopper from which it will drop into a Sprout-Waldron FM Mixer with surge hopper. The mixed feed will then be carried by screw conveyer, up the bucket elevator, through a spout magnet to a Gyro-Whip Feed Dresser. At this point, material may go through the Model 501 Pellet Ace, to the double agitator continuous molasses mixer, or if no further processing is required, it can go directly to the scale. A separate system for handling oats, consisting of a Butler Storage Tank, oat steamer and crimper and bucket elevator, brings the oats into the same double agitator continuous mixer used for the regular feed. Pellets are also fed into this mixer to form complete dairy rations.

The 28" diameter car unloading Pneu-Vac System is designed for conveying ten to twenty thousand pounds per hour of soy bean meal, or twenty-five to thirty thousand pounds per hour of whole grains directly from railroad box cars over a vertical lift of 32' and a horizontal run of 20', and by a 25 HP Positive Pressure Unit to any one of seven bins over a lift of 75' and a run of 40'.

POSITIVE PRESSURE AIR SYSTEM HANDLES MOLASSES FEED WITH EASE

Feeding freshly mixed molasses feed into an airlock feeder from a dump scale at the rate of 6-8 bags per minute can be troublesome. So our representative was asked to check on an installation we had installed a while back.

The feed is conveyed 80 feet horizontally, 5 feet vertically and then a few more feet horizontally. It then goes through two or three lengths of flexible hose into bulk feed cars. When we asked how the system was working, the manager had just one word to say: "Perfection."

If you're having trouble with your air handling system or are thinking about putting one in why not talk it over first with your S-W man. A note or phone call will set the wheels in motion.

—— SW ——

Sprout-Waldron has a condensed catalog available for your use. Ask for Bulletin 161.

FP/103

AA Arbor Acres
Make sure
Your broilers come from
ARBOR ACRES females!

told 'Don't do that' and we could also satisfy the fellow who does like to be told 'don't do it.' So we hook them both. Great idea, isn't it, Joe?"

The feed dealer blinked both eyes hard. "Well, it isn't quite clear to me, boys. What's on that paper? Does that clear things up?"

Don'ts Listed

"It sure does, Joe. On that board we'd start out with some 'don'ts,' like this:

"Don't fill chick feeders too full or you'll waste feed.

"Don't overcrowd chicks or you'll lose more than the average from disease, suffocation and cannibalism, etc.

"Don't wait until the last minute before re-ordering feed. You might not get the exact feed you want, or your poultry and livestock may have to wait for the real stuff.

"Don't let cows feed on the same pasture too long so as to spoil it for weeks.

"Don't fail to consult us about any feed problem. We're waiting."

Butterball smiled. "That's really giving them the lowdown, isn't it, Joe?"

"Read on," Joe encouraged.

"This is the 'do's'," Butterball explained. "It's for the tough customers that don't want to be told 'don't do' this."

"But," Joe commented, "he doesn't mind being told 'do this.' Is that right?"

"Exactly, Joe," commented Butterball. "Once you get it straight, you never forget it. Mike and me got so mixed up tryin' to figure out the don't and the do guys that Happy had to figure it out for us. He says it is only the timid customers that don't mind the word 'don't'."

Do's Listed

"What are the do's?" Joe asked patiently.

"Here they go," said Butterball.

"Do buy quality seeds if you want maximum crops.

"Do use recommended amounts of fertilizer for best results.

"Do keep records on production and feed costs on poultry and livestock.

"Do use the best feed management ideas you can get to increase production and lower your costs.

"Do come in and talk over any feed problems with us. We are always happy to visit with you."

Joe smiled. "Fellows I think you have the germ of an idea, there. I perhaps won't use all the don'ts and the do's exactly as you have them, but I'm willing to give the board a try."

Smiles broke over the faces of the employees and they shook hands vigorously. "We're in, pal. We're in!" exulted Butterball. "Gosh, that sure was a lot of work."

"It sure was," Higgins agreed. "My brain is all tired. Butterball, you mind if I don't go to the drive-in with you tonight? I'm going to bed early and catch up on sleep."

Attention Feed Manufacturers — Sell Your Own Brand Dog Food

- Will increase your sales
- Will increase your profit
- Will cost you less

Let more than 30 years' experience make your product for you.

For further information call or write . . .

CARSON FOOD COMPANY
Box 801 Ph. 8840
Danville, Illinois

Use Feedstuffs WANT ADS for RESULTS

MOREA Liquid Feed Supplement is a big profit item to the feed man who mixes it and sells it, and a low-cost, high-quality feed to the stockman or dairyman who buys it and uses it. MOREA makes money for the feed man and his customer.

More and more progressive feed men are finding it easy, economical and highly profitable to mix concentrated MOREA Pre-Mix with molasses to make this high-quality feed supplement for ruminants. It requires only a low capital investment for the proper, inexpensive equipment, including a pump, storage and mixing tanks, and a tank truck for delivery of the liquid feed to customers.

MOREA Pre-Mix, as sold to the feed manufacturer, is a balanced combination containing urea nitrogen, ethanol, phosphoric acid and essential trace minerals. Mixed with molasses and fed "free choice" to ruminants along with large amounts of roughage, some grain, minerals and plenty of water, MOREA produces bigger yields of better quality meat and milk at lower cost.

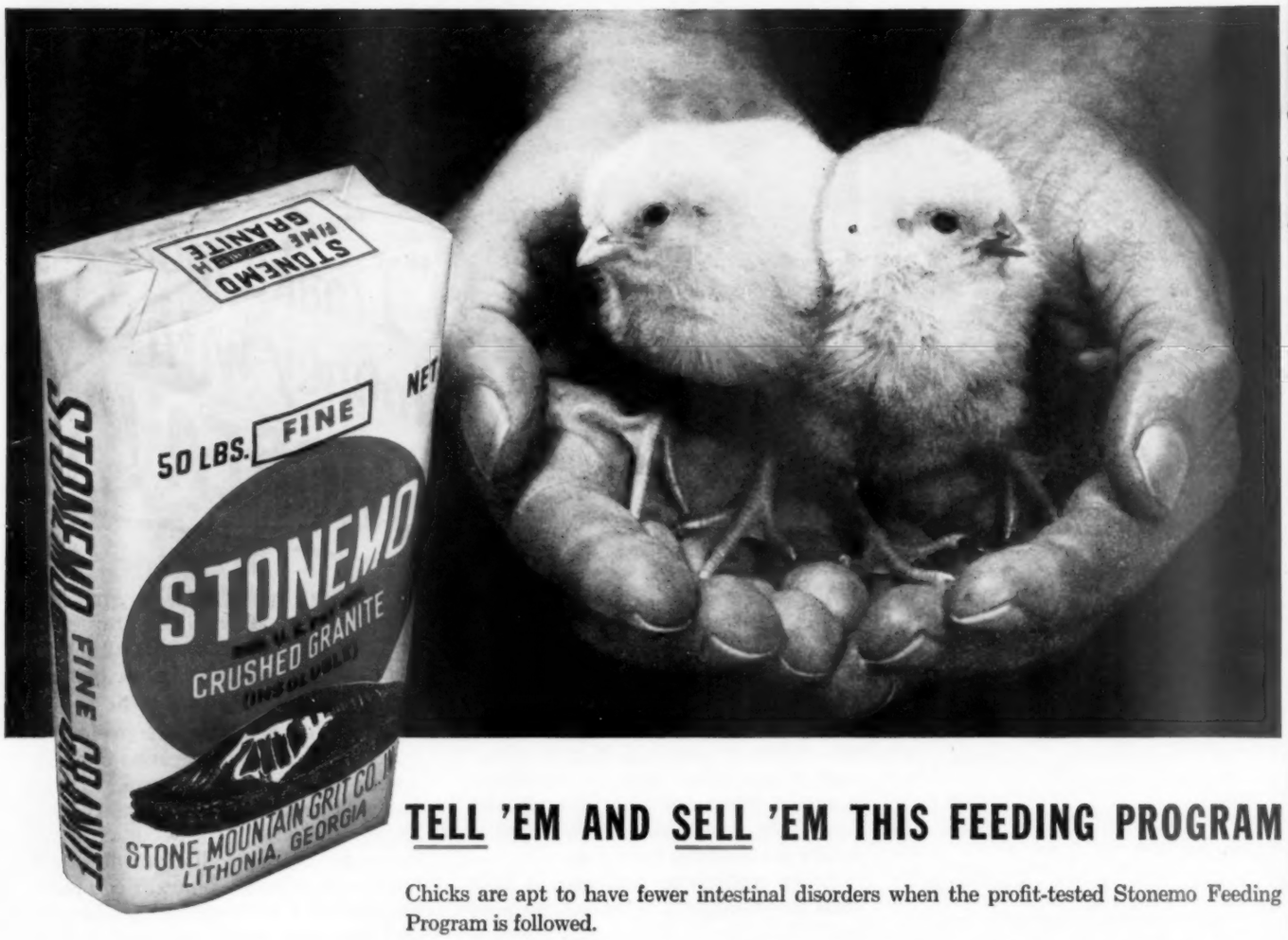
MOREA-fed animals are preferred by leading packers because of their better dressing percentage, higher carcass grade and less waste fat. Dairymen who feed MOREA report increased milk production at lower feed costs. MOREA Liquid Feed Supplement is a rich source of nitrogen and the only feed supplement that contains ethanol, the "hydrogen donor" that enables ruminants to make better use of dietary nitrogen and cellulose.

MOREA is easy to handle and offers the alert mixer-distributor an attractive profit. It flows freely even at below-zero temperatures, and does not attract flies or rodents. It will pay you to get all the facts on the many advantages of this new and different method of ruminant feeding. Mixer-distributorships are still available in certain areas.

MOREA®
Liquid Feeds

U. S. INDUSTRIAL CHEMICALS CO., Division of National Distillers and Chemical Corp., New York 16, N. Y.
FEED SERVICE CORPORATION, Plant and Office: Crete, Nebraska

THEIR FIRST MOUTHFUL



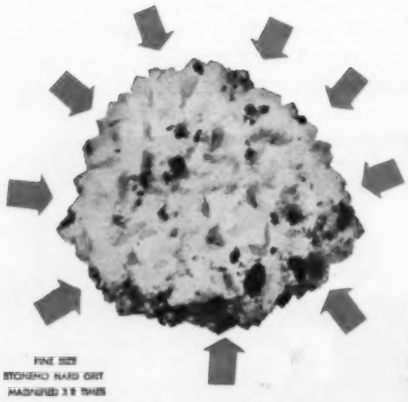
TELL 'EM AND SELL 'EM THIS FEEDING PROGRAM

Chicks are apt to have fewer intestinal disorders when the profit-tested Stonemo Feeding Program is followed.

By starting them right with "teeth" of granite grit, chicks will grind up the cracked grain and mash and rid their gizzards of litter. Chicks will get off to a better start – the kind of start that helps build strong gizzards, big sturdy bodies, and more profitable birds.

So when you sell the first feed, sell Fine (Chick Size) Stonemo, too. Stonemo will help reduce intestinal disorders, and put more of that body-building mash to work.

Size of STONEMO Important



FINE SIZE STONEMO HARD GRIT MAGNIFIED 2½ TIMES

To the right is pictured Stonemo's Research Farm. Here the proper size grit for each age of bird is tested. Exhaustive studies prove that your poultry growers will get the most from the feed you sell by following these feeding directions for Stonemo:

- Fine (Chick Size) Stonemo for the first 3 weeks
- Medium (Growing Size) Stonemo for the second 3 weeks
- Coarse (Hen Size) Stonemo from the 7th week on

These recommendations are for both pullets and broilers. Turkeys develop better with Turkey Size Stonemo after the 10th week.

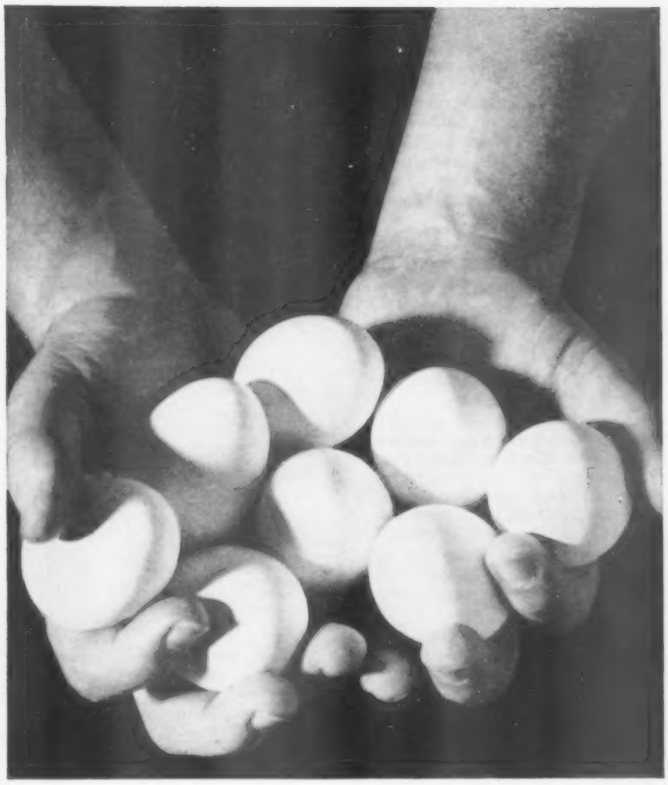
Make STONEMO your Assistant Salesman

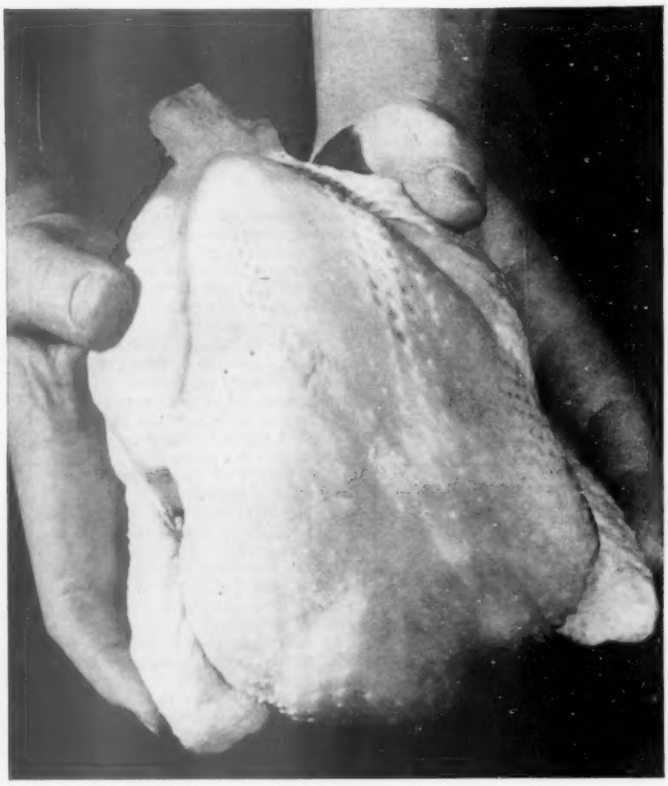
Whenever you sell feed for pullets or broilers, sell Stonemo with it. Point out how changing to larger size Stonemo the 4th and 7th weeks will increase feed efficiency, step up profits. For further data on Stonemo research results, write:

STONE MOUNTAIN GRIT COMPANY, INC., Lithonia, Georgia

STONEMO GRANITE GRIT

SHOULD BE STONEMO





More Eggs From Better Grinding

How many extra eggs your customers get doesn't depend alone on a bird's inherited capacity and the feed formulation. Many times it also depends on how thoroughly and efficiently the birds grind and use their feed.

When Stonemo's extra grinding surfaces rip open the hard film that encases the fine particles of the feed, more of the nutrients are exposed to the digestive acids for better assimilation.

In the latest work of Iowa State, up to 10% more eggs were produced from the same feed when Stonemo was offered free choice, and with better feed conversion.

It's not enough just to sell Stonemo. Sell the Stonemo Feeding Program. Then you will be selling the right size chicken's "teeth" for those extra eggs.

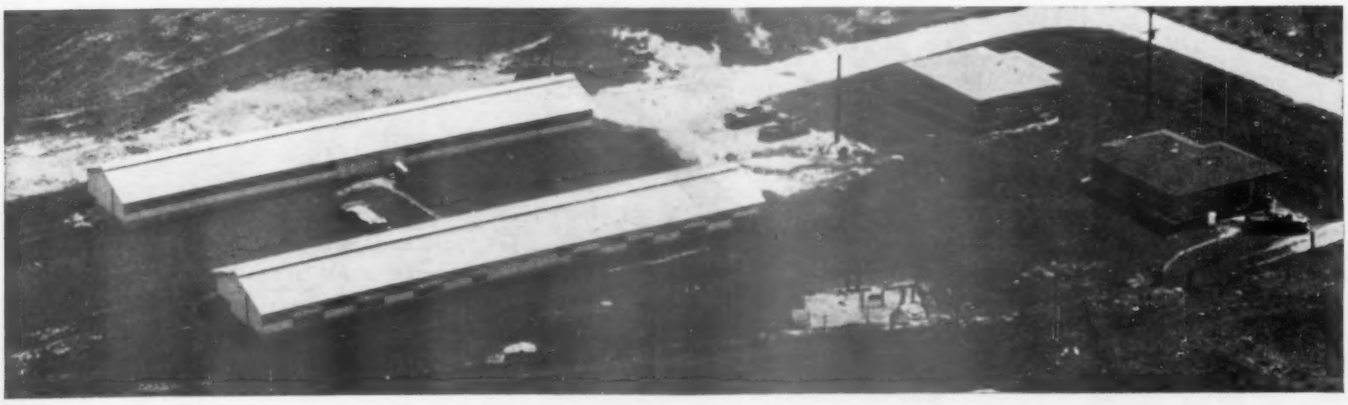
Extra Meat From Better Grinding

If you have broiler customers who are having a hard time making a profit, here is a tip you and they will appreciate. For faster feed conversion into heavier meat – broilers need gizzard teeth that are hard, sharp-cutting, quick-grinding and the proper size.

Recommend Stonemo according to feeding recommendations, and your customers will find:

- **1st. Birds will rid their gizzards of litter, fiber and feathers — make room for more meat-producing feed.**
- **2nd. Less feed will be used to produce a pound of meat, even on an all-mash feeding program.**
- **3rd. Birds get to market quicker — your customers start the next lot of broilers earlier — save time and money.**

In a series of feeding tests with broilers at our research farm, even when an all-mash diet was used, birds were heavier, feed conversion was better, profits increased nearly ½ cent per pound against no grit — $16.85 per thousand birds.



The Grit with the "EXTRA GRINDING SURFACES"

Changes Affecting the Feed Business

Agriculture is going through a number of drastic changes and will continue to do so. The feed industry stands to benefit from future changes, but only if it keeps pace in filling new needs.

By Dean McNeal
Pillsbury Mills, Inc.

Dean McNeal

EDITOR'S NOTE: An address, "Our Changing Agriculture and How It Affects Our Feed Business," provided the material for this article. The talk was given at the 1958 Midwest Feed Manufacturers Assn. convention in Kansas City by Dean McNeal, vice president of Pillsbury Mills, Inc., Minneapolis. The article involves a discussion of the current and future changes in agriculture, the reasons for the changes and how these changes can be expected to further influence the feed industry. The author and the business analysis department of Pillsbury are well known for analyses and forecasts of economic trends.

Few people who are close to agriculture will any longer challenge the idea that this important segment of our economy is going through a most dynamic period.

Changes are coming fast and the adjustments necessary to meet these changes must be made quickly. These changes are often painful to those people who have resisted them. That is why the changing agricultural scene today is such a controversial one.

Regardless of anyone's wishes, changes are taking place, and the number and speed of these changes are accelerating. There is every reason to believe that the rate of change will become faster rather than slower in the years ahead.

Some of the changes we shall discuss bode well for midwest agriculture and for those serving midwest agriculture. Some will prove to be detrimental to both groups unless aggressive and positive actions are taken to counteract them.

I shall attempt to bring out both the probable favorable trends and the probable unfavorable trends. Certainly much can be done both to minimize the impact of the unfavorable as well as to take maximum advantage of the favorable if both are recognized, understood and studied well in advance.

In relatively recent years a new influence has come into the agricultural picture which has brought changes as great as the mechanical revolution. It has been described by some as the "scientific revolution" in agriculture.

Continuing research in the fields of chemistry, genetics, botany and other sciences may well have more influence on changes in agriculture in the years ahead than will new innovations in mechanics.

In appraising the past and the present it seems fair to conclude that the livestock and poultry industries have moved very fast in accepting new scientific advances, perhaps even faster than the cereal industries.

On the other hand, cereal industries seem to have advanced further and faster than the animal and poultry industries in profiting by new mechanical advances. This would seem to indicate that animal agriculture may benefit greatly from both these influences during the years ahead.

What are some of the important changes taking place in agriculture which will have a continuing impact over the next 10-25 years?

Consumer Changes

First, it should be kept in mind at all times that consumers will finally determine the direction and degree of most of these changes. Mrs. Housewife usually has the final say as to what farmers and those serving agriculture can produce profitably over any long period of time.

Some of the significant changes that are occurring in the consumer area that will affect agriculture in the years ahead are the tremendous increases in human population during the past 20 years and the expected increases during the next 20 years.

Where these increases are apt to occur, and in what age groups, are also important and perhaps less well known.

Table 1 shows how these population changes are expected to occur by geographical areas between 1955 and 1970.

The bigger percentage increases, it will be noted, are expected in the western states and in the east north central and south Atlantic states. The smallest increases are expected to occur in the west north central and south central states.

This can be pinned down more specifically by looking at the 10 states which are expected to have the biggest increases during this 15-year period as well as the 10 states showing decreases or smallest increases. See table 2. (In studying these state figures, it must be kept in mind that the actual population figures may be more important than these actual or percentage changes.)

While there will be a substantial general increase in human population, the fact that percentage increases are expected to be significantly bigger in the East and West than in the Middle West is important.

Different age groups consume vary-

TABLE 1. Population—U.S.

	1970 Estimate (millions)	% 1970 to 1955 %
North Atlantic	51.0	122
South Atlantic	29.5	132
East North Central	44.4	132
West North Central	17.4	117
South Central	32.5	119
West	35.1	152
Total	209.9	129

TABLE 2. State Population Changes

Biggest increases	Estimated growth by 1970 (thousands)	% 1970 to 1955 %
Nevada	217	192
Arizona	796	179
Florida	2,333	165
California	7,335	157
Delaware	204	152
Maryland	1,226	145
Utah	354	144
Michigan	3,157	143
New Mexico	333	142
Colorado	650	142
Decreases or smallest increases	**Estimated growth by 1970 (thousands)**	**% 1970 to 1955 %**
Arkansas	—367	80
Mississippi	—134	94
Oklahoma	—98	96
Vermont	—2	99
Maine	11	101
West Virginia	31	102
Alabama	164	105
Iowa	202	108
Rhode Island	79	110
North Dakota	66	110

YOU ARE PROTECTED BY A DPL PROGRAM

Whether your farm is isolated,

in a farming community,

or sardined in a concentrated poultry section,

DPL . . . .

. . has a vaccine and a vaccination program to protect you. DPL offers you that unique combination, a wide choice of safe vaccines and a wide choice of methods of application. You will like DPL quality vaccines—their safety and convenience.

A vaccination program designed by DPL pathologists for your individual conditions and requirements may be obtained by writing DPL and stating pertinent information concerning your poultry operation. Write today for this personalized service.

Delaware Poultry Laboratories | Millsboro, Del.

DPL

Wenger

W-4-70 Molasses FEED MIXER WITH INCLINED AUGER FEEDER

For BULK FEEDS

Molasses Mixer Positioned Over Driveway And Fed Directly From Batch Mixer on Work Floor. Economical and Efficient Bulk Feeds Installation For Custom Mills.

Available in 2 models (W-4-70 and W-4-75) with capacities of 4-8 tons and 10-12 tons per hour respectively. Mixer discharge spouts molassized feeds:

(a) to trucks in driveway, and
(b) to bagger inside feed mill.

Wenger molasses control system permits control of rate of molasses application from work floor of mill.

Another Wenger First—Write Today for Brochure.

Wenger Mixer Manufacturing
SABETHA, KANSAS · PHONE 111

Standard of the Industry for Liquid Feed Mixing, Pelleting and Cooling Equipment.

BIO-PABST B-50

An Unbeatable Combination!

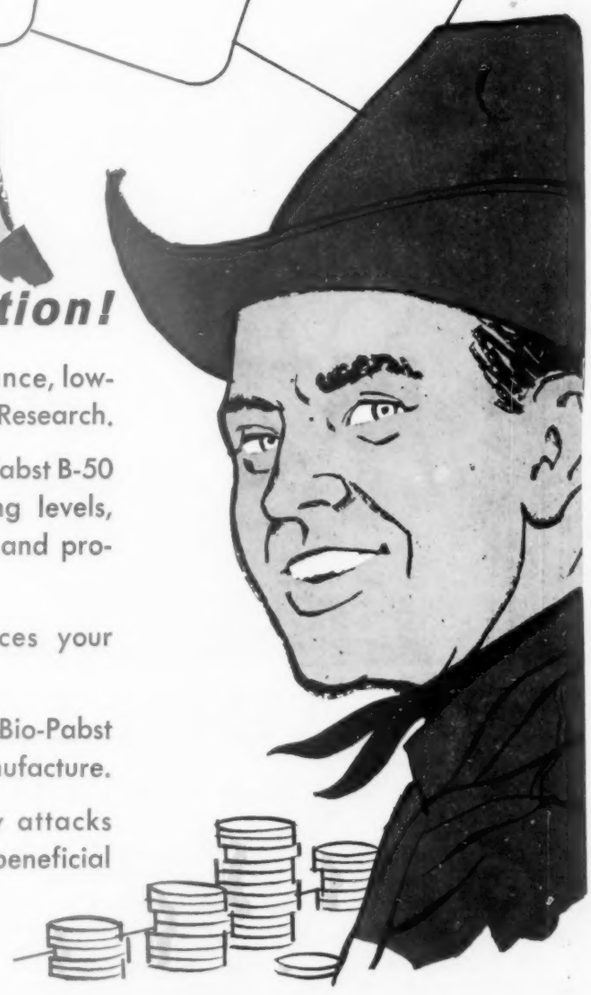
A **BIO-PABST B-50** A high-performance, low-cost antibiotic supplement developed by Pabst Research.

K **EFFECTIVE** Feeds formulated with Bio-Pabst B-50 have effective antibiotic action at all feeding levels, outstanding performance in fighting diseases and promoting growth.

Q **ECONOMICAL** Bio-Pabst B-50 reduces your antibiotic cost by 50%.

J **STABLE** Field performance proves that Bio-Pabst B-50 is stable through all processes of feed manufacture.

10 **SELECTIVE** Bio-Pabst B-50 selectively attacks many disease organisms without destroying beneficial bacteria of the digestive tract.



"Be Thrifty—Use B-50"

Pabst Blue Ribbon SINCE 1844

PABST BREWING COMPANY

ANIMAL FEED DIVISION • MILWAUKEE 1, WISCONSIN • TWX-MI 586 • Phone BRoadway 1-0230

Prompt shipment of all Pabst Feed Supplements from our distributors' warehouses at:

CARROLL SWANSON SALES CO., 620 Des Moines Bldg., Des Moines, Iowa • Phone: Cherry 4-5177
SELEY & COMPANY, 900 Wilshire Boulevard, Los Angeles 17, California • Phone: Mutual 1371
P. G. CALLISON CO., 935 N. W. 12th Avenue, Portland 9, Oregon • Phone: Capitol 2-7271
THEO. W. MARTIN & SON, 3166 Maple Drive N. E., Atlanta 5, Ga. • Phone: CEdar 7-7531
FEED SERVICE CO., 502 S. Front Street, Mankato, Minnesota • Phone: 81636
HOLT PRODUCTS CO., Box 840, Milwaukee 1, Wisconsin • Phone: FRanklin 2-7210

ing quantities of food. There is also a variation in the types of food consumed. Thus, the expected changes by 1970 in the different age groups become significant.

Significant increases are expected in the percentages in the heavier eating age groups up to 29 years of age while the percentages in the age groups from 30 to 59 are expected to show a decline.

Despite the publicized sharp increase expected in the age group over 60 years, the percentage of this group to the total is expected to remain static.

Eating Habits

Equally important to various segments of agriculture is the change in the eating habits of these people in the years ahead. What will they eat?

The per capita consumption of livestock and poultry products has increased sharply during the past 35 years. It is expected to show further significant increases during the next 20 years.

This trend toward greater per capita consumption of animal proteins, together with the increasing population, means that more grains will be converted to meat, milk and eggs in the future than in the past. There seems little doubt about this trend holding up if the standard of living in this country continues to improve.

Eating habits, it also may be noted, are becoming more homogeneous in all geographic areas. Studies indicate that the great divergence between area eating habits within the U.S. is gradually disappearing. This shift is probably associated with the improved average standard of living.

Most of the changes in agriculture which are identifiable at this time are the result of a swing in emphasis from human labor in the farming enterprise to "capital" and "know-how." They are the results of the long established trend toward mechanization in agriculture and the more recently accepted trend toward the use of new scientific findings.

This entire discussion might well be given over to changes that are occurring in the production and handling of cereal crops, new crop varieties, new fertilizers, new planting, cultivating and harvesting machinery.

However, since your primary interest is feed, we will confine our discussion to those changes in agriculture which are of particular importance from the standpoint of the feeder and those who serve him.

Some of these changes in animal agriculture are important because of geographical changes. Table 3 shows significant changes in recent years in the location of production centers for various classes of livestock and poultry.

For the most part these figures indicate a swing in livestock and poultry production away from the heavy grain producing centers and closer to the important centers of consumption. This is something midwest feeders and those servicing feeders must combat aggressively if the Midwest is to maintain its position.

Top quality in the finished products and acceptance of new mechanical and scientific advances to increase efficiency of production, movement and processing are two important tools that must be used by midwesterners in meeting this competition from other areas.

Other changes apply more uniformly to all areas.

TABLE 3. Production Trends (Per Cent 1957 is of 1940)

	Milk cows %	Layers %	Turkeys %	Hogs %
East Coast ..	107	109	424	91
Central	87	76	194	87
California ...	129	119	377	49

TABLE 4. Farm Assets Per Farm in U.S.

Year	Average assets Per Farm
1940	$ 6,094
1950	16,962
1954	23,000
1957	27,000

Bigger Units

One of the more important changes is the trend toward bigger livestock and poultry production units. Manpower and machinery must be used at maximum efficiency if an individual farmer is to remain competitive. This results in fewer farms and more efficient farmers.

One-hundred years ago the percentage of the total national labor force engaged in agriculture was approximately 65%. This has declined steadily until today only 12-13% of the total labor force is engaged in agriculture. This percentage is expected to decline to 10% by 1965 and only 7% by 1975.

For emphasis it might be stated that our total population has doubled in the last 50 years while the number of farm laborers has gone down steadily.

At the same time, we are better fed today than we have ever been. This has been accomplished with little increase in the total acreage under cultivation.

Mechanization and scientific progress have made it possible for one man to produce many times as much food as he did 50-100 years ago.

The Family Farm

The fear is often expressed that the "family farm" is going out of existence. There is no so-called real evidence that this fear is justified.

The family farm must and will continue to get bigger to the point where efficient use can be made of the land, machinery and other fixed costs. This increase in size to the point of maximum efficiency is necessary if a family farm, or any other farm, is to stay competitive. It will still be a family operated enterprise.

Table 4 shows the rapid increase since 1940 in the value of assets owned by the average farmer in the U.S. and illustrates why it is necessary to make optimum use of these assets.

Greater Efficiency

Future competition for a favored place in the national "market basket" will be between all kinds of foods and

FURAZOLIDONE (nf-180)

boosts laying feed sales

Controls more flock troubles than any other disease fighter in feeds today

Week-a-month *protective* feeding with furazolidone in your laying feed program is a business-builder. Keeps customers' birds out of trouble . . . heads off laying slumps before they start . . . helps you sell your entire feeding program.

No other drug can match the way furazolidone makes full-time layers out of part-time, disease-weakened birds. Fed in a booster feed 5 to 7 days per month, furazolidone relieves the pressure of stress periods, respiratory troubles, intestinal ailments and other infections. It prevents bacterial build-up when birds' resistance is down.

Stimulates feed consumption . . . improves feed-egg ratio.

Whether you sell popular brand booster feeds with furazolidone or mix your own, furazolidone makes the best feeds perform better. Recommend feeding a ration containing 2 lbs. nf-180* per ton 5 to 7 days every month or whenever stress is likely.

Furazolidone comes to you premixed as nf-180. Contact your Hess & Clark representative or Feed Products Division for complete mixing information.

**2 pounds of nf-180 per ton is expressed on feed tags as 100 grams furazolidone or 0.011%.*

FREE

Write for this kit of field reports and sales boosting ideas.

furazolidone
nf-180
NT-7-4
nitrofurans
HESS & CLARK, Inc.

ELAM
GRAIN COMPANY

Complete line of grains and soft feeds

Processors and handlers of brewer's grains

St. Louis elevator . . . 2,500,000 bushels capacity

Call St. Louis
OLive 2-5550

not merely between different meats, eggs, dairy products, etc. Maximum efficiency and competitive prices must be effected if a particular area or a particular farm product is to hold its position.

Scientific advances in production of livestock and poultry have given these products a strong position in this competition. The fact that there is still much room to effect further efficiencies through mechanization in production and handling of these products adds further to the favorable outlook.

Table 5 shows how this advancement in know-how has added to the efficiency of production of livestock and poultry operations. The comparisons are between 1930 and 1955. Further improvements have been made since 1955.

More Integration

The necessity for maximum efficiency undoubtedly will lead to further integration in livestock and poultry operations. There is reason to believe that these efficiencies may be better realized under contractual integration between different groups who are expert in their respective fields rather than through direct ownership.

The trend toward greater movement of farm products by water and truck is significant to Midwest agriculture. It has resulted in a lower-cost movement of grains from the Midwest to other areas for use in the production of livestock and poultry in those areas.

Railroads reportedly are planning actions to combat this trend. However, it has already had a big influence in changing the location of certain agricultural production as well as the location of facilities of those servicing this production.

Effects on Feed Industry

How do these changes affect the formula feed industry?

First, the feed industry must realize more than ever before that feeds are a cost-of-production item. In many instances they make up the biggest single cost-of-production item for the feeder.

One of the industry's greatest responsibilities is to be sure that our customers are competitive at all times with other foodstuffs which will be competing more aggressively for the consumer dollar.

This must come from an adequate research program which will continue to increase the amount of eggs, milk and meat that can be gotten from a ton of feed.

More specifically, these changes probably will have the following effects on the formula feed industry:

Each customer will be bigger. He will be more important since he will take a bigger volume of feed. He will keep the same kind of books as other businessmen and will know exactly where he gets results and where he does not get results.

More of your customers will be spe-

(Continued on page 36)

TABLE 5. Improved Efficiencies in Livestock and Poultry Production

Dairy Cattle

	1955 Per cent of 1930
Milk production per dairy cow..	122%

Hogs

	1930	1955
Feed needed to produce 100 lb. gain	425	325
Weight at eight weeks of age..	25	45

Turkeys

	1930	1955
Feed needed to produced 1 lb. gain	6.5	4
Average age at 20 lb. (weeks)	34	24

Broilers

	1930	1955
Feed needed to produce 3 lb. broiler	15	8
Average age at 3 lb. (weeks)..	15	9

Layers

	1930	1955
Feed required per dozen eggs produced	7.8	5.3
Feed required to mature pullets	25	19
Egg production per bird	121	190

WISCONSIN ALUMNI RESEARCH FOUNDATION

LABORATORY SERVICES

PRACTICAL CHICK FEEDING STUDIES IN BATTERIES OR ON LITTER

DETERMINATIONS OF:
• VITAMIN B_{12} • ANTIBIOTICS
• ARSENICALS

A.O.A.C. vitamin D_3 chick assays
U.S.P. vitamin D rat assays — results in 8 days
U.S.P. or A.O.A.C. vitamin A assays
Other vitamin assays
Amino acid assays
Biological protein evaluations
Proximate analyses and mineral determinations
Insecticide Testing and Screening
Other biological, chemical and microbiological services
PROJECT RESEARCH AND CONSULTATION

Write for price schedule

WISCONSIN ALUMNI RESEARCH FOUNDATION
P.O. Box 2059-N • Madison1, Wis.

THE MIXER THAT MEETS EVERY MIXING REQUIREMENT...

THE Marion MIXER

WITH Exclusive MIXING AND BLENDING ACTION

MIXES DRY MATERIALS:
• Feeds
• Minerals & Vitamins
• Fertilizers, etc.

BLENDS DRY MATERIALS with LIQUID ADDITIVES:
• Molasses
• Fish Solubles
• Animal Fats, etc.

Absolute accuracy is assured through the exclusive Marion cross blending and mixing action. Even trace materials can be thoroughly and completely blended into your product. A constant uniformity, guaranteed---

Bag after Bag after Bag!

SEND TODAY FOR FREE DESCRIPTIVE LITERATURE

RAPIDS MACHINERY COMPANY
887 11th Street Marion, Iowa

FEED NUTRITIONISTS, *we leave it to you:*

Can you cut ingredient costs with Torafeed yeast at 8¢ a pound?*

Compare these yeast analysis figures from **FEEDSTUFFS'** *1957 table with Torafeed analysis from* **RED STAR** *laboratories*

NUTRITIONAL FACTORS	Regular Brewers Dried Yeast	Regular Torula Dried Yeast	Red Star Torafeed Averages	Check here values most important to you and ask yourself if Torafeed isn't your best value source.
Protein	45% min.	48% min.	51.5%	
Fat	1.0% min.	2.0% min.	4.8%	
Fiber	2.7% max.	2.7% max.	0.5%	
Riboflavin mg. per lb.	15	20	28.5	
Niacin mg. per lb.	203	220	252	
Pantothenic acid mg. per lb.	50	24	26	
Choline mg. per lb.	1750	1300	1270	
Folic Acid mg. per lb.	4.4	10	9.1	
Arginine	2.2%	2.6%	3.6%	
Lysine	3.0%	3.8%	4.1%	
Methionine	1.0%	.80%	.80%	
Cystine	.50%	.60%	.70%	
Tryptophane	.81%	.50%	.70%	
Glycine	1.7%	0.2%	2.4%	

See why more and more nutritionists are specifying Red Star Torafeed

The chart above—along with the price schedule at the right—explains the rapid growth of Red Star Torafeed yeast. Check the food factors most important to you, then compare Red Star Torafeed prices with the amount you are currently paying. This will give you the approximate saving you can make for your company by using Torafeed.

Where to save money with Torafeed

CATTLE FEED—Tests at Ames, Iowa, showed that torula yeast stimulated rumen bacteria, producing greater weight gains per pound of feed, in less time for less money, and gave a greater number of animals grading choice.

MINK FEED—Michigan State University experiment reports show torula yeast gives excellent results.

PET FOODS—As a protein replacement (see above chart), Torafeed is high in quality and low in price.

FISH FOODS—Reports at an Animal Nutrition Research Council meeting showed torula was by far the most economical yeast to use in fish food.

Send for **FREE** *sample*

Write today for a free sample of Red Star Torafeed (dried torula yeast). If you mention the types of feed you manufacture, we will send you research reports relating to your area of interest. Address inquiries to Red Star Yeast & Products Co., Department F, Milwaukee 1, Wisconsin.

***USE THESE TORAFEED PRICES To Figure Your *Savings*:**

The exact price you pay for Red Star Torafeed (dried torula yeast) depends on your location, and on the quantities purchased. Prices here are F.O.B. Green Bay, Wisconsin. Torafeed is not a by-product. It has consistent quality throughout the year. The price and the supply are steady.

	Price per Pound
Carlot (40,000 lbs. minimum)	8¢
Trucklot (20,000 lbs. minimum)	8¢
10,000 to 19,950 lbs.	8¼¢
5,000 to 9,950 lbs.	8½¢
2,500 to 4,950 lbs.	8¾¢
1,000 to 2,450 lbs.	9¢
950 lbs. or less	9½¢

Torafeed Guaranteed Analysis

Protein (crude)	min. 45%	Moisture	max. 8%
Fat	min. 3.5%	Ash	max. 9%
Fiber	max. 1.5%		

RED STAR
YEAST & PRODUCTS CO.
MILWAUKEE 1, WISCONSIN

How To Make Bugs Grain-Shy With Douglas TETRAKOTE Liquid Grain Protectant

Now you can stop insects *outside* the corn, wheat or milo you have in storage.

Douglas TETRAKOTE, the liquid grain protectant, is a positive barrier to bugs for up to one year or longer. It is easily applied to grain as you fill elevator bins or flat storage.

For about 2c per bushel grain is coated with TETRAKOTE'S protective residual deposit. Germination and milling quality is not affected. By using TETRAKOTE *now* you may prevent losses due to insect damage that can mount up to $1.00 per bushel or even more.

Retreatment Unnecessary 1½ Years Later . . .

Edwin Steinmetz, Manager of the Walton Grain Co. in Upper Sandusky, Ohio writes . . .

"We have used TETRAKOTE in treating our *corn* and wheat for long term storage for the last three years. It has done all that Douglas claimed it would do, and more. Some of the corn has been in storage 1½ years without having to be retreated. Having a storage capacity of one and one-half million bushels, we looked for a grain protectant that would save us time and dollars. TETRAKOTE fills the bill. It is easy to apply as the grain moves into storage. It keeps corn and wheat weevil-free for a year or more thereafter."

DON'T WAIT for bugs to take another bite out of your profits! Get this COUPON in the mail TODAY . . .

Douglas

"Guardian of America's Grain"

LEADING ENTOMOLOGIST PROVES THAT TETRAKOTE KEEPS GRAIN CLEAN!

Donald A. Wilbur, professor of entomology at Kansas State College, conducted a series of extensive and rigid tests on 133 on-the-farm storage bins in several Kansas Counties. The results of these tests were so encouraging Douglas Chemical Co. was urged to make TETRAKOTE available commercially.

FREE! Professional Inspection By Grain Sanitation Specialist

Have your stored grain and premises checked for insect infestation. Following inspection, a complete summary and evaluation report will be submitted to you at no charge. Report covers moisture content, temperature, test weight, insect population, presence of odors. Potential trouble spots in and around your plant are also covered. Corrective recommendations are also included.

Free Bonus Offer . . .

Douglas 1958-59 Grainman's Insect Calendar with full color illustrations and information about insects that can and do attack your grains. Now you can identify them quickly and have corrective fumigation information at your fingertips.

Just check "Calendar" on the handy coupon.

***Positive Insect Control*... Every possible insect problem can be licked with these Douglas Products . . .**

TETRAKOTE, the modern liquid grain protectant . . . guards against insect infestation up to one year or longer.

TETRAFUME, more than an all-insect fumigant . . . helps cool, helps control moisture, helps remove musty and ground odors as well.

TETRAKIL, America's top weevil killer especially for fumigation of farm and flat storage.

TOPKOTE "77", 2-way protection for grain surface . . . fumigates top; leaves insect-killing residue.

SPECIAL MILL SPRAY, surface and space spray for positive long-lasting protection against insect invasion.

FARM BIN SPRAY, perfect for pre-filling clean up. Residual spray rids empty bins of hidden insect population . . . also use on outside of bins.

Mailing This Coupon may save you hundreds, even thousands of dollars . . . Send it TODAY!

Costs You Nothing; Douglas Foots The Bill

DOUGLAS CHEMICAL COMPANY, Dept.F-3
620 East 16th Avenue, North Kansas City, Missouri

☐ I want professional assistance with grain sanitation. Without obligating me, have your Specialist contact me.

☐ I would like to have the inspection made within 30 days _____ 60 days _____ (check one)

I am storing _____ bu. of _____ (kind of grain)

☐ Please Send Copy of 1958-59 Grainman's Insect Calendar

COMPANY NAME _____

ADDRESS _____

CITY _____ STATE _____

TITLE _____ SIGNED _____

cialists. Rather than operate on a small scale in a number of different livestock and poultry projects, he will concentrate on one, two or three and will be an expert in those fields. For example, he might combine a laying flock and broiler operation, a hog and dairy operation, etc. But he will be big enough in all of the projects he undertakes so that he can make optimum use of modern equipment and up-to-date "know-how."

This specialized feeder is demanding and will continue to demand specialized services. He will be well informed himself and to a considerable degree will be a specialist in:

Accounting. He will have complete records on results and will know his cost-return ratios on each lot of animals or birds. He will buy on the basis of measured results.

Nutrition. He will be informed on the latest developments in animal nutrition. He may well demand more special feeds unless the industry does a job on research and sells the results of this research to the feeder.

Production Engineering. He will operate a business that is mechanized to the optimum degree. Those serving him must be prepared to help him use this machinery to the maximum.

Management. He will be running a factory operation and will take a more vital interest in all steps in his operation from the buying of the raw materials to the selling of the finished product.

It will require salesmen who are both qualified and well trained in the latest developments in all aspects of animal and poultry production to meet this kind of specialist and discuss his problems with him.

Industry Changes

Cost of producing the finished livestock or poultry product must be the first consideration of our industry in planning future changes. Among other things, this probably means:

1. Maximum use of bulk delivery to the feeder and other savings in distribution costs.

2. Aggressive and continuing research programs to assure highest-quality feeds.

3. The elimination of many more-or-less menial tasks which the feed salesman has been asked to perform under the label of service. These bigger, specialized feeders will be better able to perform these tasks themselves and will not be willing to pay twice for them.

4. A carefully planned program by feed manufacturers to help their customers keep close to changing developments in nutrition, sanitation, mechanization, marketing developments and other areas of management.

Conclusions

There is general agreement that changes in agriculture are occurring at an increasing rate. These changes are good for the formula feed industry because they are geared toward keeping livestock and poultry producers competitive with other foodstuffs which compete for a share of the consumer dollar.

Feed manufacturers and others servicing feeders must think five, 10 and 15 years ahead so that their services and products will keep pace with these changes in agriculture. A 1958 feed is not apt to do a maximum job for a 1968 broiler.

Everyone connected with the feed industry must continue to keep in mind that we are selling a cost-of-production item, in many cases the principal cost-of-production item used by our customers. This puts a particularly big responsibility on our shoulders in keeping our customer competitive by providing feeds which continue to give better and better results in the feed lot or the laying house.

California Cattlemen Seek Beef Research

SAN FRANCISCO—Resolutions to encourage beef research programs both nationally and in the West were adopted at a California Cattlemen's Assn. conference recently in San Francisco.

Three objectives of the research programs would be to develop methods of evaluating beef quality, discover fast-growing, high-quality strains through breeding tests and to expand current research on beef quality.

It was proposed that the National Research Council appoint a national beef research committee to study the proposed program and that the University of California College of Agriculture appoint a beef research planning committee to get the project underway.

It was also proposed that a progeny testing committee of commercial cattlemen be appointed by the president of the association, consisting of five commercial cattlemen, a cattle feeder, a purebred breeder, a meat processor and a retailer.

TO BUILD MILL

DE SOTO, MO.—Valle Feed & Farm Service has begun construction here of a building to house the company's services. A Purina dealer and fertilizer and farm store merchandiser, the store plans construction of a mill and the installation of mixing equipment.

From Start To Finish...

Are you sure your feeds contain adequate Vitamin K?

How do you know? Is there a practical way of testing the amount of vitamin K in your poultry feed once it is bagged? Is the vitamin K you now use adequate and completely usable?

You can be sure how much vitamin K your poultry feeds contain when you use KLOTOGEN F®, the water-soluble vitamin K analog. With KLOTOGEN F you *know* how much vitamin K you're putting into your feeds. Every lot is quantitatively assayed before it leaves Abbott Laboratories.

The high energy of today's poultry rations also means poultry get less natural vitamin K. Because it cannot be stored in the body, vitamin K must be supplied every day to avoid deficiencies.

For this reason, feed manufacturers from coast-to-coast have found that by adding KLOTOGEN F, the water-soluble form of vitamin K, they can be sure their poultry feeds contain adequate, absorbable levels of this essential anti-hemorrhagic vitamin.

Laboratory tests have proved KLOTOGEN F, the versatile vitamin K form, 3 to 6 times more effective than fat-soluble forms. High prothrombin levels are maintained, even during times of dubbing, debeaking, enteritis, over-medication, etc. And when high-level sulfa medications are used, this superiority is up to 10 times greater.

KLOTOGEN F is a more potent and more absorbable form of vitamin K. For just a few cents per ton of finished feed, you and your customers can be sure your poultry feeds contain and are supplying adequate, usable levels of vitamin K . . . even during times of stress.

For full information about KLOTOGEN F, the superior vitamin K analog, write or call Abbott Laboratories, Chemical Sales Division, North Chicago, Ill. Why wait . . . do it today!

®KLOTOGEN *F—Stabilized Menadione Sodium Bisulfite, Abbott; U. S. Patent No. 2367302.*

Abbott LABORATORIES

Manufacturers of PRO-GEN® (Arsanilic Acid, Abbott) —poultry and swine feed additive 712491

BROWER PORT-A-MIX

TRANSPORT MIXING WAGON

Saves TIME and MONEY on Hauling, Mixing, Elevating, and Unloading!

Quickly and easily attached to any tractor

This highly efficient wagon, feed mixer and elevator combination gives you ALL the time, money and work saving advantages of bulk grain handling. At harvest time, unload grain directly from combine into mixing wagon, then transfer automatically into elevator. Ideal for filling self-feeders and storage bins . . . cuts feeding time, eliminates costly trips to mill or elevator.

Telescoping PTO shaft with quick attaching universal joint and guard. Horizontal and vertical augers handle all feeds. V-type bin has two compartments, feeds flow freely to bottom. Sturdily constructed. Heavy-duty 5" channel steel frame, 14 ga. steel mixer hopper, 15x5 wheels with Timken bearings. Three sizes: 70, 110, and 150 bushels.

WRITE FOR LITERATURE AND PRICES

BROWER Mfg. Co., 583 N. 3rd., Quincy, Ill.

Farm and Feed Salt NEWS

FROM INTERNATIONAL SALT COMPANY, INC.

There's a Sterling Blusalt product for every feed-mixing need

. . . so you can add correct amounts of salt and trace minerals with one product in one simple operation!

BLUSALT Usage in Different Feeds . . .

DAIRY CATTLE FEEDS

Calf Starter	10 lbs. Sterling Supermix Blusalt ❶ per ton.
Calf Grower	25 lbs. Sterling Green'salt ❷ per ton.
Complete Dairy Rations	20 to 40 lbs. Sterling Supermix Blusalt per ton. (high producers need more salt)
Dairy Concentrates	30 to 80 lbs. Sterling Supermix Blusalt per ton.

❶ **Sterling Supermix Blusalt** . . . made especially for modern livestock feed mixing. Contains highest-quality salt, plus essential trace minerals for maximum growth and feed efficiency: manganese, iron, sulfate sulfur, copper cobalt, iodine and zinc. Anti-segregation agent added. In red and blue 100-lb. bags or bulk.

❷ **Sterling Green'salt** . . . a scientifically balanced trace mineral salt, with 10% phenothiazine added for effective low-level control of certain internal parasites. This is a "plus" salt for your feeds and for resale. In green and red 25-lb. bags with carrying handle and 100-lb. bags.

BEEF CATTLE FEEDS

Steer Fattener	20 to 30 lbs. Sterling Supermix Blusalt per ton.
Cattle Supplements	40 to 80 lbs. Sterling Supermix Blusalt per ton.

POULTRY FEEDS

Chick Starter	10 lbs. Sterling Gold Bond Blusalt ❸ per ton.
Broiler Mash	5 to 10 lbs. Sterling Gold Bond Blusalt per ton.
Layer and Breeder (all-mash program)	10 lbs. Sterling Gold Bond Blusalt per ton.
Layer and Breeder (grain and mash program)	20 lbs. Sterling Gold Bond Blusalt per ton.

❸ **Sterling Gold Bond Blusalt** . . . a new product of International's Feed and Farm Research! The same fine salt and trace minerals as in Supermix Blusalt . . . but with extra manganese and zinc in the correct proportions to guard against leg weakness in chickens and turkeys. In 100-lb. orange and blue bags or bulk.

SWINE FEEDS

Pig Starters and Growers	10 lbs. Sterling Swine Supermix ❹ per ton.
Pig Finishers	10 to 20 lbs. Sterling Swine Supermix per ton.

❹ **Sterling Swine Supermix Blusalt** . . . another special product from our laboratories. Salt plus trace minerals. To guard against Parakeratosis in pigs, it contains extra zinc in readily available form. In 100-lb. bags and bulk.

NOTE: For feed mixing, Sterling Granulated Salt is also available. This is a pure white salt used by mixers and manufacturers everywhere. Guaranteed analyses and usage tables on all Sterling Salt products available from International Salt Co. Ask your Sterling representative, or contact our sales office nearest you.

INTERNATIONAL SALT COMPANY • SCRANTON, PA.

Sales Offices: Atlanta, Ga.; Chicago, Ill.; New Orleans, La.; Baltimore, Md.; Boston, Mass.; Detroit, Mich.; St. Louis, Mo.; Newark, N. J.; Buffalo, N. Y.; New York, N. Y.; Cincinnati, O.; Cleveland, O.; Philadelphia, Pa.; Pittsburgh, Pa.; Memphis, Tenn.; and Richmond, Va.

Service and research are the extras in **STERLING SALT**

PRODUCT OF INTERNATIONAL SALT COMPANY, INC.

MEMBER AMERICAN FEED MANUFACTURERS ASSOCIATION

Only Dr.

UN

does all

FEED PRODUCTS DIVISION

DR. SALSBURY'S LABORATORIES

Charles City, Iowa

Dr. SALSBURY'S

SALSBURY'S Unique New

UNISTAT

this for your chick and growing feeds

- **PREVENTS COCCIDIOSIS**
- **PERMITS IMMUNITY**
- **STIMULATES GROWTH**
- **INCREASES FEED EFFICIENCY**
- **IMPROVES PIGMENTATION**

Exacting, controlled tests and conclusive field trials prove it, Dr. Salsbury's exclusive new coccidiostat UNISTAT... 3, 5-Dinitrobenzamide combined with Acetyl-(para-nitrophenyl)-sulfanilamide and time-proven 3-Nitro-4-hydroxyphenylarsonic Acid... does more than ordinary coccidiostats to help you formulate superior chick and growing feeds.

For UNISTAT is not only highly effective in preventing cecal and intestinal coccidiosis, it permits the development of immunity while significantly stimulating growth, increasing feed efficiency and providing better over-all development *that can be seen in improved pigmentation of shanks and skin.*

UNISTAT is palatable, easy to handle and compatible with all normal feed ingredients.

Meet more of the grower's needs and profit more with feeds containing UNISTAT. Write, wire or phone today for UNISTAT Feed Manufacturer's Guide.

nation-wide service to the feed industry

Chicken as Thrifty Buy Given Stress By Broiler Industry

RICHMOND, VA. — The broiler industry is giving "strong impetus" to the stepped-up sales promotional program of the National Broiler Council, Frank Frazier, executive vice president of the council, said recently, as the organization kicked off its "thrift" publicity campaign to point up the true value of the broiler meat to consumers at a time when the American economy is tight.

"The council has had a 7% gain from the 125 new membership agreements that have become effective to date this year," Mr. Frazier stated. Membership meetings were held recently in Wisconsin, and meetings will be held this month in Indiana, the two newest states to join the council effort.

"We are running a great deal ahead of our planned schedule for new memberships," he stated, "and if this continues as we now feel it will, the entire council program should be fully activated much faster than we had anticipated."

Meantime, the broiler organization is concentrating on a nation-wide publicity campaign to tell the American consumer the value of broilers at a time when thrift is on her mind.

The thrift theme will point out the value of the broiler, along with the fact that it is high protein-low fat and economical.

12-Point Program

The campaign on chicken as a thrifty buy will spearhead a 12-point public relations program presented to the council recently by Dudley-Anderson-Yutzey at a council executive committee meeting in Chicago.

One of the objectives of the council program is to reorganize and revitalize publicity efforts for the Chick-N-Que promotion. Along with this Chick-N-Que promotion will go active promotion of chicken for its best holiday markets—Memorial Day, Father's Day, Fourth of July and Labor Day — and the creation of new markets for the Thanksgiving, Christmas and New Year's holidays.

Also being considered is coordination of support from related foods.

The council points out that although chicken is now a product available in high quality all year around, consumption is much greater in the summer. The goal of the council is to develop a year-around market for chicken to take care of winter production and increase consumption of the product.

The institutional market is another target.

"To achieve maximum effectiveness," the council said, "all the broiler industry efforts must be translated to the retail trade."

Jack Crutcher Joins Commodity Brokerage

MEMPHIS — W. Jack Crutcher, Jack Crutcher & Co., Memphis, has joined the Commodity Brokerage Co., Memphis, but he will continue operation of his own firm. Jack Crutcher & Co. is a broker for cottonseed oil, oil meal, and hulls, soybean oil and oil meal.

The Commodity Brokerage Co. has been operating as a broker primarily in farm commodities, including corn, oats, and soybeans for domestic use and for export through ports at New Orleans and Mobile, Ala.

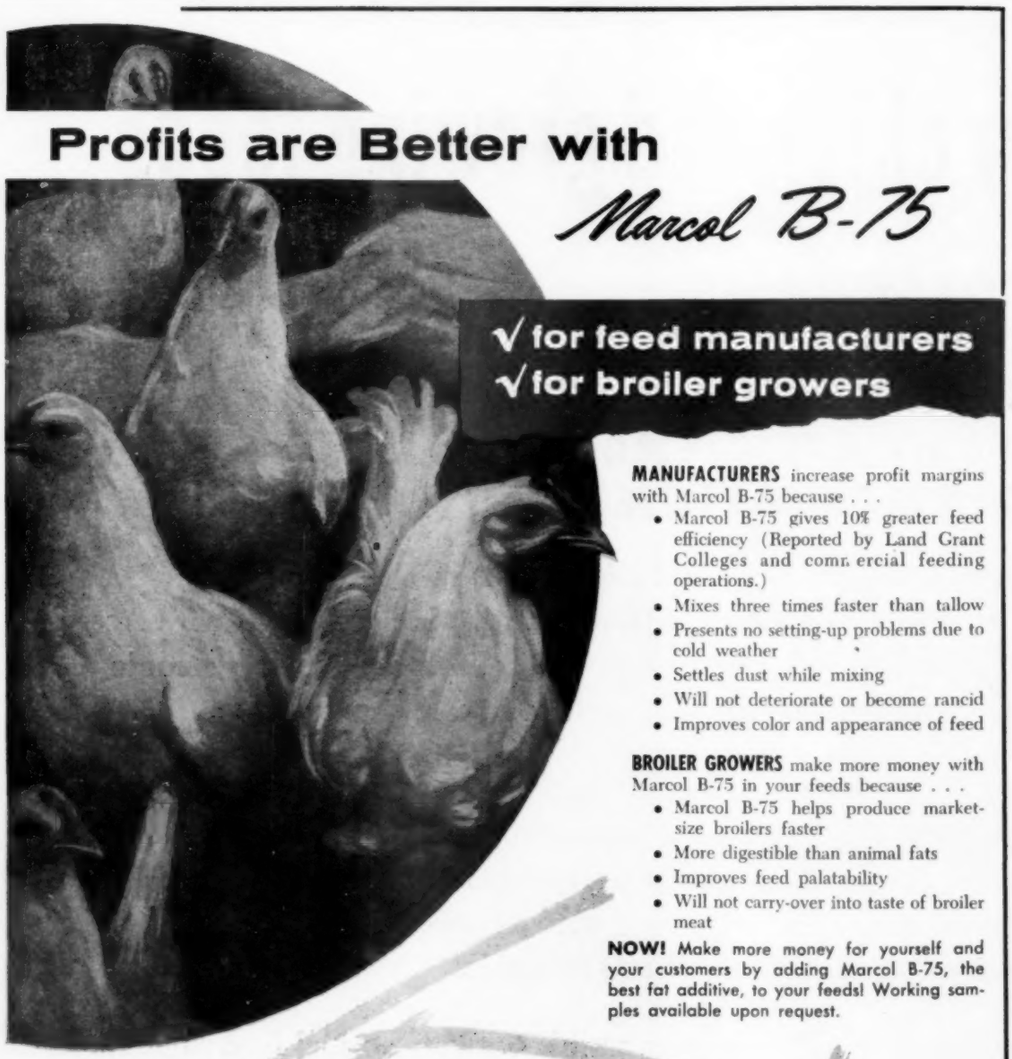
Also associated with the group is Ralph Thompson, who has handled planting seeds here for several years, dealing with producers and seed dealers. Mr. Thompson will continue to operate his own business also.

The new association of specialists in various fields will offer complete service on the growing commodity markets of the Mid-South, it was announced.

Before opening his own business, Mr. Crutcher was an executive a number of years with the Wesson Oil & Snowdrift Co.

W. M. Anderson

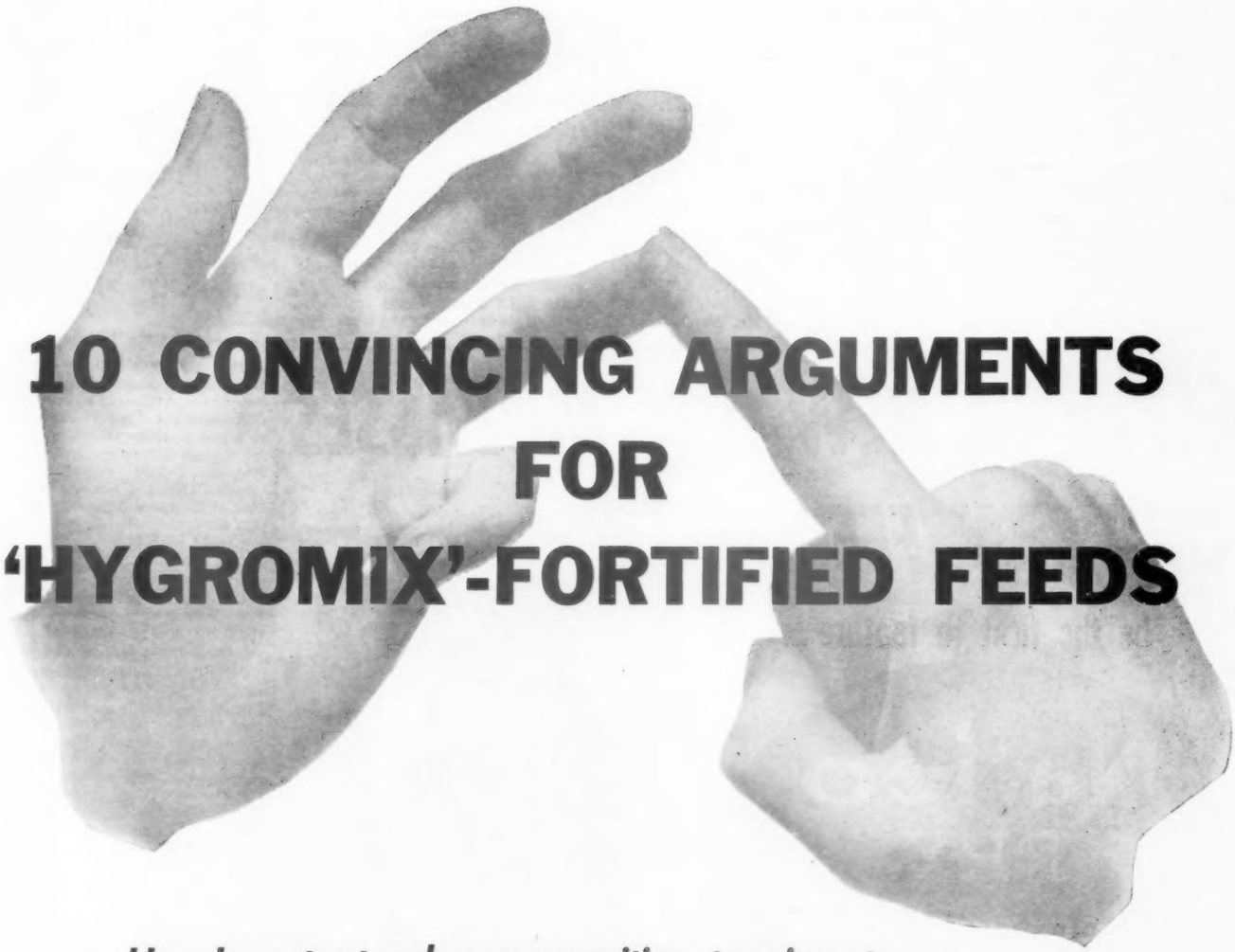
NEW PRESIDENT—W. M. Anderson has been elected president of New England By-Products Corp., Boston, replacing F. C. Bowes, president since 1943, who resigned at the company's annual directors' meeting. T. W. Tobin, assistant treasurer, was appointed treasurer. Other officers of the firm are D. A. Trayhan, sales manager; J. W. Kuske, assistant sales manager; R. N. Allen, director of nutrition. The firm has served the feed industry since 1923, specializing in fish meal and fishery by-products as well as feed fortifications.


Profits are Better with
Marcol B-75
√ for feed manufacturers
√ for broiler growers
MANUFACTURERS increase profit margins with Marcol B-75 because . . .
• Marcol B-75 gives 10% greater feed efficiency (Reported by Land Grant Colleges and commercial feeding operations.)
• Mixes three times faster than tallow
• Presents no setting-up problems due to cold weather
• Settles dust while mixing
• Will not deteriorate or become rancid
• Improves color and appearance of feed
BROILER GROWERS make more money with Marcol B-75 in your feeds because . . .
• Marcol B-75 helps produce market-size broilers faster
• More digestible than animal fats
• Improves feed palatability
• Will not carry-over into taste of broiler meat
NOW! Make more money for yourself and your customers by adding Marcol B-75, the best fat additive, to your feeds! Working samples available upon request.
GIVE YOUR CUSTOMERS THE BENEFIT OF
Marcol B-75
the modern Miracle in Agriculture
made exclusively by
MARCO CHEMICAL COMPANY
P. O. BOX 8 • FORT WORTH 1, TEXAS

LONFOSCO Soft Phosphate with Colloidal Clay
Prepared by: Loncala Phosphate Co. High Springs, Fla.
Distributed by: Warren-Douglas Chemical Co.
1513-15-17 Burt St., Omaha, Neb.

MILBREW CO.
BREWERS' DRIED YEAST
PROCESSORS SINCE 1933
3456 N. BUFFUM ST.
MILWAUKEE 12, WIS.
PHONE ED. 2-3114

Lilly **REPORT TO THE FEED INDUSTRY**



10 CONVINCING ARGUMENTS FOR 'HYGROMIX'-FORTIFIED FEEDS

Here's potent sales ammunition to aim at your swine feed customers and prospects

- 'Hygromix' feeds give a completely new, effective way to control worms in swine . . . continuously, safely, automatically. 'Hygromix'-fortified feeds provide *full-time*, instead of part-time, worm control.
- 'Hygromix' feeds are the first worm-control method for swine that can be used on a continuous, day-by-day, in-feed basis . . . protecting pigs as soon as they begin to eat feed, and right on through their lifetime on the farm.
- 'Hygromix' feeds control not only the large roundworm but also at least two other damaging swine worms . . . the nodular worm and the whipworm.
- 'Hygromix' feeds give double-barreled worm protection by (1) stopping worms from producing eggs, and (2) killing worms long before they mature.
- 'Hygromix' feeds protect pigs against follow-up infections and diseases that thrive on tissue and internal organs damaged by worms.
- 'Hygromix' feeds help improve herd health by controlling worms . . . one of the most important causes of unthriftiness, lowered feed efficiency, and secondary diseases and infections.
- 'Hygromix' is an antibiotic and is not toxic. It does *not* throw pigs off feed or cause digestive upsets. 'Hygromix' works well with other ingredients included in modern swine rations. Does its job without causing purging or cramping.
- 'Hygromix' does not affect the taste or smell of feeds. Requires no change in recommended feeding methods. In fact, 'Hygromix' feeds simplify management by eliminating special "treatments" with purge-type wormers.
- 'Hygromix' feeds operate around-the-clock to control costly worms in baby pigs, shoats, market hogs, gilts, sows, and boars.
- 'Hygromix' feeds work to make and keep farms clean of these expensive parasites when used consistently for *all* hogs . . . *all* the time.

HYGROMIX

(*S. hygroscopicus* Fermentation Products, Lilly)

Lilly

ELI LILLY AND COMPANY, AGRICULTURAL AND INDUSTRIAL PRODUCTS DIVISION, INDIANAPOLIS 6, INDIANA

Field Pelleting Seen Some Time Off; More Stationary Units Likely

ALEDO, ILL.—Any equipment for pelleting hay in the field probably is some time away, and wider use of stationary pellet mills is likely to precede extensive field pelleting in the Midwest.

This opinion was expressed at a recent meeting on feed handling which was held here for farmers.

Jack Mitchell, Muscatine, Iowa, who is with the California Pellet Mill Co., addressed the meeting. He told farmers that equipment for pelleting hay in the field may not be available for 1½ to 2 years. Greater use of stationary pellet mills will probably come before any widespread field pelleting, he indicated. Mr. Mitchell foresaw pelleting service being offered round the clock to farmers by local mills and elevators during haying seasons and at grain harvest time.

Mr. Mitchell said he believes the big future growth in the pellet business may be in processing complete rations for livestock.

Regarding field pelleting, he said that two principal problems are weight of the equipment, which may cause it to become mired in some areas, and high power requirements.

The discussion at the meeting also included reference to Illinois research indicating that pelleting of hay and concentrate for ruminants improved feeding results.

Asked about the possibility of field pelleting equipment, Mr. Mitchell said that machinery needed to do a quality job would be expensive. He mentioned $6,000 for one-ton-per-hour capacity. A minimum supply of 30 electric horsepower and 60 diesel or propane was said to be a major consideration.

Moisture content of 20% or less was suggested by Mr. Mitchell as about the right level for pelleting a hay crop. The lower the moisture, the better pellet it will make, he said. This would mean sun curing the hay for a day or two after cutting before windrowing it for the pellet mill.

It was pointed out at the meeting that many agricultural engineers are working to develop and field-test pelleting equipment for farmers.

Emergency Loans Set Up for N.J. Farmers

TRENTON, N. J. — New Jersey farmers who suffered damages and losses as a result of the snowstorm March 20-21 will be able to get emergency loans through county Farmers Home Administration offices.

Chester J. Tyson, state FHA director, issued instructions to the 11 county FHA offices in the state authorizing them to make the loans. His action followed consultation with Phillip Alampi, state secretary of agriculture, and after surveying the severity of the situation.

Mr. Tyson said the most serious losses, mostly on poultry and dairy farms, occurred in southern New Jersey, with scattered damage reported in the northern part of the state. He commented that 900-1,000 poultry farms were affected in Cape May, Cumberland, Gloucester, Atlantic, Salem, Burlington and Camden counties.

Production losses are attributed to lack of drinking water, lighting facilities and electricity of automatic feeding equipment.

"The situation is made more serious because, at this time of year, most poultry men are faced with increased costs concerned with raising chicks for replacement flocks," Mr. Tyson explained. "This seasonal expense is added to the regular cost of maintaining egg production.

"Another factor in the poultry men's economic plight is the depressed condition of the market, which only recently has shown any sign of improvement."

Charles W. Heard

JOINS BROKERAGE — Charles W. Heard has joined Heard-Kinard-Smith, Inc., Atlanta, a grain and feed ingredient sales organization. Charles is a son of Luke Heard, and he will work with his father and with Will Kinard. Before joining the firm, Charles attended Georgia State College of Business Administration. He will finish his last semester work during night school.

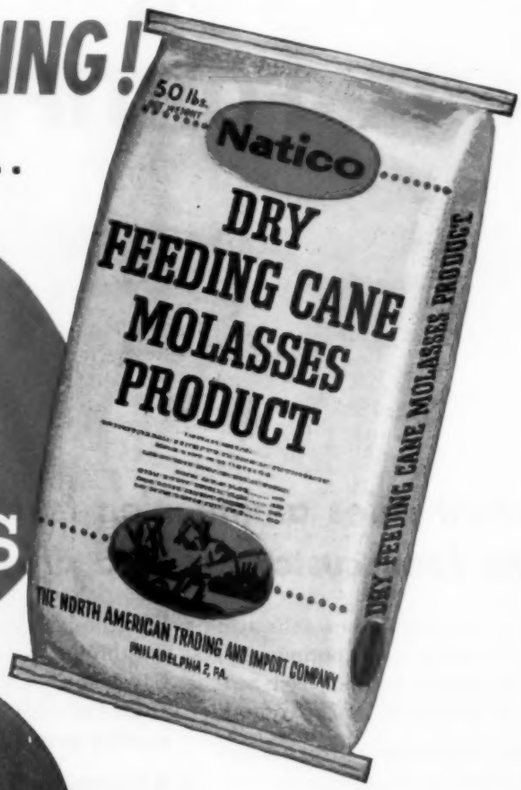
Plant Foreman Dies

McMINNVILLE, ORE. — G. Perry Smith, 57, foreman at the Buchanan-Cellers Grain Co. plant, McMinnville, died recently. He moved to McMinnville in 1937 and had been employed for more than 20 years by Buchanan-Cellers Grain Co. He is survived by his widow and a daughter.

NOW-A NEW DRY MOLASSES FOR FARM FEEDING!

be the first to feature...

Natico DRY Feeding Cane MOLASSES Product



MORE THAN 48% SUGAR!

AVAILABLE FOR IMMEDIATE SHIPMENT!

WRITE TODAY FOR PROFIT MAKING FACTS ABOUT NATICO!

Remember, something wonderful happens when you add NATICO!

Pass the word along to your customers—*add* NATICO to feed; *subtract* dollars from feeding costs! NATICO is the new, dry all molasses product—*no carriers, no fillers*—with a guaranteed 48% sugar content that adds attractive color and fragrance to feed. Even makes dry, home-grown grains and roughages tasty. Packed in easy-to-handle 50-lb. bags, NATICO is economical to buy, profitable to sell.

FOR BEEF AND DAIRY CATTLE, SWINE, POULTRY

Natico

Product of THE NORTH AMERICAN TRADING & IMPORT COMPANY

World's Largest Importer of Cane Molasses

1429 WALNUT STREET • PHILADELPHIA 2, PA.

MIDWEST SALES AGENT—The North American Trading & Import Company, 101 Arsenal St., St. Louis, Missouri. Telephone: PRospect 6-0058

Manufacturers and Suppliers of

EXPELLERS

SOLVENT EXTRACTION EQUIPMENT

DRYERS • FLAKERS

GRAIN EXPANDING EXPELLERS

MATERIAL HANDLING EQUIPMENT

Write for information and prices

The V. D. ANDERSON COMPANY

Division of International Basic Economy Corporation

1900 West 96th Street, Cleveland 2, Ohio

HERE'S PROOF!

In this folio are test data that offer *positive proof* that Borden's **FERMACTO 400** is truly one of the greatest advances in nutrition to come out of the Borden laboratories in many years.

A copy is waiting for you . . . to show you that Borden's **FERMACTO 400**, developed on the Borden test farms and proved by practical field tests, will help you build feeds that promote better livability, faster growth and maximum feed efficiency . . . *and at lower cost.*

Get the full story from your Borden representative or write today for your copy of the **FERMACTO 400** folio. It will come to you promptly by return mail.

BETTER FEEDS THROUGH RESEARCH

THE Borden COMPANY
FEED SUPPLEMENTS DEPARTMENT
360 Madison Avenue, New York 17, N. Y.
LABORATORIES AND TEST FARMS, ELGIN, ILL.

Pneumatic Conveying in Mill Modernization

By John Fischer
Sprout, Waldron & Co., Inc.

The world entered the Air Age in December, 1903, when the Wright Brothers flew their plane at Kitty Hawk. The second Air Age—conveying by air—is now well under way, as more and more milling firms convert to pneumatic handling of dry materials. Pneumatic conveying is not new—consider the savage and his blow gun—but the possibilities that it possesses have only been partially realized in the last 10 to 15 years. It is now generally considered in the design of new mills, but not nearly often enough when modernization of an old mill is being contemplated. Yet an existing mill can be made a cleaner and safer place to work with air conveying equipment. The ease of installation and operation of the equipment results in economies which frequently enable a system to pay for itself in a short time. Anyone who is thinking of modernization cannot afford to ignore the advantages possessed by this form of materials handling. Let us consider them point by point:

Cleanliness

Pneumatic systems are not only clean, but self-cleaning to a large extent. Materials of widely varying size and texture, from fine powder to large lumps, can be conveyed through lines with little, if any cross contamination. In screw conveyors and bucket elevators, on the other hand, there is a tendency for material to lodge in the corners and returns, and to be held up. Pipelines characteristically have no cracks and crevices, hence it is virtually impossible for bug harbors and points of infestation to exist. Dust in a pneumatic system is easily controlled, and may even be reclaimed, where it possesses some particular value. Higher sanitary standards usually result in a higher quality product, and a cleaner mill improves employee morale and production.

Pneumatic systems can be installed wherever pipelines can be run. There is nothing rigid about a pneumatic system. Conveying lines can be placed in corners, run along the walls, ceilings, or floors of the mill, and can be made to span open spaces with a minimum of structural support. They can go around corners, under or over railroad tracks, and have frequently been employed to cross over property lines where other types of conveying equipment would have created complicating problems of trespass and support. The flexibility of pneumatic systems is so great that it will play a considerable part in the architecture of future mills. In combination with outdoor bulk storage, pneumatic conveying can virtually eliminate the need for multifloored operation. Its flexibility eliminates the rigid spacial relationship between process units necessary with mechanical systems.

The moving parts of a pneumatic system are the fan or blower, and the rotary airlock or feeder. These units are totally enclosed, with exposed parts, such as driving or driven shafts, completely guarded. Since they are generally located at a point far removed from the location where the operation of the system is stationed, they offer a minimum of tangible hazards. Injuries incurred in the operation of a pneumatic system are so rare as to fall into the category of unusual accidents.

In addition to safety, a certain degree of elimination of the element of human error can be effected by these systems. They are especially adaptable to electronic or electrical control. The development of electronic control has been more rapid if anything, than even the development of the materials handling systems themselves. Since they are so adaptable to such systems, the manpower required can be reduced to supervisory functions, with a corresponding reduction in lost time, mistakes, and scheduling time.

Economy

This is the most significant advantage of materials handling systems. Labor costs in recent years have increased enormously, in some cases as much as 100%. Power costs, on the other hand have only risen slightly. Since it is possible for materials handling to constitute a large percentage of the cost of a product, while adding practically nothing to its value, it must be a major objective in any cost reduction program. The economy that can be realized by its use continues to gain in importance as our inflationary spiral continues to rise.

More work can be done by fewer men with pneumatics. Conveying lines can be taken to the material, instead of bringing the material to the conveyor. The heavy manual labor of shoveling or of moving bags can be completely eliminated. Operator morale is improved, because of the cleanliness and safety inherent, and production is correspondingly improved.

The cost of installation is frequently much lower. Piping does not require the supports that mechanical equipment needs. Valuable space can be released for other purposes.

Any system which is represented to

EDITOR'S NOTE: Pneumatic conveying—its advantages and limitations, types of systems and factors in the design of a system—is discussed in the accompanying article. The article was prepared by John Fischer, manager of the materials handling department of Sprout, Waldron & Co., Inc., Muncy, Pa., and it was presented at the recent Washington Feed Mill Production School by Harold Alsted, vice president of Sprout-Waldron. The school was held in Yakima under the sponsorship of the Washington State Feed Assn.

PILOT BRAND
OYSTER SHELL

Through the years, PILOT BRAND Oyster Shell has been first choice with poultry raisers everywhere. That's because PILOT BRAND is almost 100 per cent calcium carbonate, the perfect eggshell material. Test after test proves that PILOT BRAND helps produce more eggs with stronger shells.

The big, day-in, day-out demand for PILOT BRAND means steady sales, fast turnovers, good profits for you. And we help keep customers coming your way with consistent national advertising in leading farm and poultry journals and on more than 70 prominent radio stations.

Order from your distributor . . . or write us.

PILOT BRAND OYSTER SHELL FOR POULTRY

Oyster Shell Products Corporation
Mobile, Alabama

Use K-M IN BABY CHICK DRINKING WATER!
Wise POULTRYMEN use
HILLTOP LABORATORIES
— Aids for Poultry —
for Greater POULTRY PROTECTION!
WRITE FOR CATALOG AND PRICE LIST!
HILLTOP LABORATORIES

Negative pressure unloading system, cars and trucks to storage, showing cyclone collector and airlock mounted over distributing screw conveyor. Note two unloading lines, one on each side of tanks, and dust collector mounted between tanks. Branch line under filter conveys collected dust to storage.

possess so many virtues must have some drawbacks. Pneumatic conveyors are expensive, and they frequently require more horsepower than other forms of materials handling. In relatively short systems, the characteristic features, such as cleanliness and flexibility, must offset the increased cost to make a pneumatic system worth consideration. In long systems, for example, systems totaling more than 100 ft. in combined horizontal run and vertical lift, the differences in cost and in horsepower requirements become less pronounced. The characteristic advantages of flexibility and ease of installation become the important factors in the problem of choice. Where really long distances, from 200 to 1,000 feet, are concerned, pneumatic systems are definitely less expensive.

Understanding the Process

There are two major types of conveying systems: negative pressure and positive pressure. The so-called "push-pull" unit, which could be considered a third type of system, is a combination of the other two.

In a negative pressure system, the material is drawn into and through the conveying line by suction, which is generated at the far end of the system by a centrifugal fan or a rotary positive displacement blower. In fan systems, a separating cyclone is placed between the material line and the fan, and most of the material being conveyed is separated from the air stream in this unit. An airlock at the base of the cyclone enables the vacuum created by the fan to be maintained while the material is being continuously discharged from the unit. The efficiency of separation in a cyclone collector varies with the size of the material being handled and with the size of the dust particles in the material. A well constructed cyclone will have a separating efficiency of 99½ to 100% for all materials and dust down to 100 mesh. Finer particle sizes will be less efficiently collected. The fine dust will pass through the centrifugal fan without harm to the fan itself, because the clearances within the fan are quite large, and can be collected in a bag house type of filter unit.

A negative pressure system can also be constructed using a rotary positive displacement blower as the vacuum producing source. Since these units are capable of producing much higher vacuums in the conveying line, they are capable of conveying greater

(Continued from page 18)

The Only Roller Mill That Does Everything

PEERLESS ALL-PURPOSE ROLLER MILL

CRIMPS-CRACKS SMALL GRAIN without dusting
GRANULATES EAR CORN without dusting

The Peerless "All-Purpose" Commercial Roller Mill answers the growing demand for a mill that will crimp-crack all small grains, as well as ear corn. More and more livestock and poultry men are demanding coarser, dust-free feed because it's more palatable, more digestible, less wasteful and improves feeding results 10% to 20%.

Write today for complete information about Peerless Commercial Roller Mills

PEERLESS EQUIP. CO., INC. Dept. 406, Joplin, Mo.

PAT. APPLIED FOR

Gilbert Jackson

BOARD OF TRADE BLDG., KANSAS CITY 5, MO.
EARL GARRATT—BOB KIVETT, ASSOCIATES
COMPANY, INCORPORATED

Phone BA 1-0337
TWX KC-252

All Feed Ingredients
A Nationwide Service from the Heart of America

DOUBLE YOUR TONNAGE and TRIPLE YOUR PROFITS!

HONEGGER LEGHORNS
A natural profit-maker with plenty of follow-up poultry feed sales. An exclusive with HONEGGER DEALERS.

BIG "H" FEEDS
Are tested and proved at Honeggers' 600 Acre Practical Test Farm. The superior results of Big "H" Feeds mean repeat orders and repeat profits.

FARM BUILDINGS
Honeggers' complete line of competitively priced, pre-built farm buildings are an extra "exclusive" profit plus for Honegger Dealers.

EQUIPMENT
Honegger Dealers can have equipment shipped prepaid with their cars of feed. Honeggers' full line of modern labor-saving equipment makes an excellent "door opener" for extra feed sales.

For Full Details Write or Phone Collect TODAY!

HONEGGERS'
FAIRBURY, ILLINOIS

Quick way to improve your mixes . . .

G-AN-EN

adds vitamins, protein, minerals to balance dog diets . . . plus real nose appeal

When you add G-AN-EN in a 5% ratio to your mix formulas, you're adding flavor dogs can't resist . . . and extra food values dogs need for sturdy growth.

G-AN-EN is a concentration of all these ingredients in handy dry form: fresh-dried whole whey, dried buttermilk, cheese rinds, brewers dried yeast, vitamin A and vitamin D_2 feeding oil (stability-improved), niacin, sulphates of iron, zinc, copper, and manganese chloride.

ALL THESE EXTRA FOOD ELEMENTS ARE SUPPLIED BY G-AN-EN:

6 VITAMINS—*vitamins A, D_2, B_1, riboflavin, niacin (the anti-black-tongue factor), and pantothenic acid.*

6 MINERALS—*valuable milk minerals, calcium and phosphorus,* plus *the mineral salts of copper, iron, zinc and manganese chloride.*

MILK PROTEIN—*The milk protein in G-AN-EN contains all the essential amino acids in the milk proteins lactalbumin and casein.*

You'll find G-AN-EN is quick and easy to blend. It's packed in 50-lb. bags. Start today to improve your mixes this easy way.

G-AN-EN
is a Kraft Product

Order from / Kraft Foods Company
500 Peshtigo Court
Chicago 90, Illinois

"Never let a sale run into a dead end. Always play position for the next shot."

Science comes to the farm in a feed bag

Those words by an unknown salesman have almost become a law among the nation's top sales producers.

But can an industry like ours play "position"?

We certainly can.

We can play position for the next sale by constantly reminding feeders of the extra profit they've made with today's formula feeds.

We can play position by continuous emphasis of the fact that new ingredients put into formula feeds are based on endless days of painstaking laboratory research and feeding trials. In short, when a feedman says a feed works, it works.

We can play position by holding out a promise of even newer and better feeds to come.

A case in point is this message on the discovery of a new poultry antibiotic which is now appearing in leading farm journals.

Pfizer

Chas. Pfizer & Co., Inc.
World's largest producer of antibiotics
New York · Chicago · Dallas
Atlanta · San Francisco · Montreal

NEW ANTIBIOTIC DEVELOPED SPECIALLY FOR POULTRY:

OLEANDO-MYCIN

BOOSTS GAINS 2½ TO 4 TIMES OVER PENICILLIN

Over the years, penicillin has been one of the most widely used antibiotics for broiler and turkey starter feeds.

By consistently producing fast gains at low cost, its use in feeds became a standard poultry practice.

But, scientists reasoned, if penicillin could produce these extra "antibiotic gains," maybe a *new* antibiotic could do it better.

A project was started that was to last many years. Tens of thousands of antibiotic-containing samples from throughout the world were studied.

Many new antibiotics were found which could surpass the performance of penicillin in virtually every area except in broiler and turkey starter rations.

But then, a new substance was isolated, tested and purified into crystals of antibiotic.

When analyzed, it was found to be a chemical cousin of a compound found in the sap of an Oleander plant. Scientists named it Oleando-mycin.

First tests with Oleando-mycin showed great promise. Broilers and turkeys produced more meat from every pound of feed — faster — than ever before.

What happened next was an excellent example of how Pfizer, the feed industry and colleges work together to bring new techniques, thoroughly tested, to agriculture.

Several universities, dozens of feed companies and Pfizer pooled research efforts and compared results.

When tabulated recently, results showed that Oleando-mycin could produce 2½ to 4 times greater gains than penicillin, on 5% less feed, with half as much antibiotic.

The result has been a new standard of gains and feed efficiency — a new tool for the feed industry to use in improving the value of poultry feed.

Science comes to the farm in a feed bag

Pfizer

Pfizer Agricultural Research and Development Dept.
Terre Haute, Indiana

This advertisement, one in a continuing series on behalf of the scientific advances being incorporated in today's fine formula feeds, is currently appearing in Farm Journal, Successful Farming, County Agent & Vo-Ag Teacher, Better Farming Methods, Farm Quarterly and Agricultural Leaders' Digest.

Positive pressure conveying system, showing blower and motor assembly, air lock and inlet manifold. Capacity 120,000 lb./hr. whole grains or pellets up to 300 ft. horizontal.

quantities of material. Because of these higher vacuums, however, the cyclone collector must be made of much heavier construction, to withstand the vacuum, and because of the machined tolerances within the pump itself, a filter must be interposed between the collector and the pump to prevent dust being drawn through the pump. (There are exceptions to this rule, because most well constructed rotary positive displacement blowers can tolerate a certain quantity of fine dust; however, good practice generally dictates that a filter be used.) The filter must also be constructed to withstand the vacuum created by the pump, and generally is built into the cyclone separator as a component part. These are known as products recovery units. The design of the products recovery units varies with the manufacturer, but in principle, they consist of a bag house mounted within a cylinder, which is integral with a conically shaped separator below. The major variation consists of the method employed for cleaning the filter tubes, which must take place continuously to provide most efficient operation.

In positive pressure systems, the motive unit is at the head of the line, instead of the tail end. Material is introduced into the moving stream of air through an airlock or feeding device, and pushed to its destination. In general, rotary positive displacement pumps are used as a source of air for these systems, although centrifugal fans and turbines can be used on occasion. High pressures obtainable with these units enable large quantities of material to be moved with smaller volumes of air than can be handled in a negative system. This permits the use of smaller diameter conveying lines. It also permits the employment of smaller filter units, since the filter is generally rated on the amount of air it can handle. The filter is placed at the end of the system, when employed, and is used to collect the air exhausting from the point to which the material is being conveyed. This may be a bin, a mixing tank, or a cyclone separator. Quite frequently, where the bin is of sufficient size, a simple cloth vent is all that is necessary for the relief of the conveying air.

Many terms are used to describe pneumatic conveying systems, and the conditions under which they operate, such as "dense phase," "dilute phase" and "fluidized state." These can be unnecessarily confusing, since they represent states, rather than controlling conditions. Dense phase and dilute phase conveying can be accomplished with either positive or negative pressure systems, and the fluidized state refers to a condition of intermixture of air with material which can only exist for a short distance in the conveying line. The best general rule to follow, in beginning your consideration of an air handling system is the following:

1. If it is desired to convey from many points or from a large area to one destination, use a negative pressure system.
2. If it is desired to convey from one point to several destinations, use a positive pressure system.
3. If it is desired to convey from many points to many destinations, with stationary equipment, use a push-pull system.

The factors which influence the design of a pneumatic conveying system are the same, regardless of whether it is positive or negative pressure. The supplier of the system will need certain information to specify intelligently the most efficient unit, and the customer or plant superintendent who is interested in obtaining the most comprehensive picture with the minimum of time should be prepared to furnish the following information. In gathering this data for presentation to a supplier, he will also be able to visualize the complete conveyor picture in relationship to his existing mill and to his processes:

The five major factors in the design of a system are the rate of conveying; the length of run, horizontally; the height of vertical lift; the number of bends in the conveying line; and the nature of the material.

RATE OF CONVEYING. That it is necessary to know the amount of material it is desired to handle is obvious. However, related to this and equally necessary, is the method by which the material is to be introduced into the conveying line. A relatively even feed rate is necessary, which can be effected by means of screw feeders or rotary feeder valves. Free flowing materials, such as grain, can be metered into the conveying line by slide gates. If provisions are not made for relatively smooth rates of feed, it is possible to place overloads at the intake of the system, which it cannot handle or overcome at a normal rate.

LENGTH OF RUN, HORIZONTAL. This factor plays an important part in the ultimate sizing of the pipe and the power units. It is not to be considered a limiting one, because horizontal distances of several hundred feet are not unusual. It should be noted that it is much more significant in a negative pressure system than in a positive pressure system, since, after a certain point has been reached in length of horizontal run, the capacity of a system falls off at an exceedingly rapid rate. In a positive pressure system, on the other hand, long horizontal distances are more general than are short ones, due to the extreme suitability of this type of system for long distance conveying. Runs of more than 1,000 ft. are possible, and runs of several hundred feet are common.

VERTICAL LIFT. This is, relatively speaking, the least significant of all the factors involved in the design of a pneumatic system, either negative pressure or positive pressure. In a vertical lift, the material is truly airborne, and is less subject to internal and external frictional resistances. Lifts of 100 to 150 ft. are easily handled.

BENDS IN CONVEYING LINE. Although the fact that a pneumatic conveying line can be taken around corners with ease, every designer tries to keep these turns or changes of direction to a minimum. They consume more power than any other single component of a system, and sometimes, depending on the type of material being handled, consume as much as all the other components put together. For this reason, careful consideration should be given to the directness of the route between the inlet and discharge of the conveying system. Where it is possible to do so, two 45° elbows should be substituted for two 90° elbows. This will result in a saving in power, or an increase in effective conveying capacity.

NATURE OF MATERIAL. It goes without saying that the flow charac-

DAIRY SUPPORT PRICES TO BE INCREASED

WASHINGTON—The U.S. Department of Agriculture revealed this week that the national average dairy support prices for the 1958-59 marketing year will be boosted to $3.06 cwt. for manufacturing milk and 56.6¢ lb. for butterfat. Reason is that 75% of dairy parity prices at the beginning of the marketing year reflects higher prices than the estimated supports announced March 21. The USDA had announced previously that if 75% of parity prices for these two commodities as of April 1 indicated higher prices, the support prices would be increased. Prices for purchases of butter, cheese and nonfat dry milk to carry out dairy price support are being upped ¼¢ lb. as a result of the support price increases. The April parity prices indicate increases of 3¢ cwt. for manufacturing milk and .4¢ lb. for butterfat from the estimated prices of $3.03 cwt. for manufacturing milk and 56.2¢ lb. for butterfat, which were based on March parity prices. During the 1957-58 marketing year, dairy supports were $3.25 cwt. for manufacturing milk (reflecting 82% of the parity equivalent as of the beginning of the marketing year) and 58.6¢ lb. for butterfat (reflecting 79% of parity as of the beginning of the marketing year).

PROVE TO YOURSELF THAT NO OTHER SALT

Than—

BARTON MIXING SALT

In bag or in bulk, you'll find every desirable mixing quality in BARTON Mixing Salt. BARTON'S pure evaporated salt, plain or iodized, is readily available to provide trouble-free mixing for the feed manufacturer. Available, too, with trace minerals if your formula requires them. Prove to yourself that there is none finer than BARTON Mixing Salt.

FEED DEALERS—

Provide your customers with the extra margin of assurance they get when they supplement every ration with BARTON SALT. In bags or blocks, it is available with or without added minerals. Keep plenty on hand.

THE BARTON SALT CO.
HUTCHINSON, KANSAS
The Salt Cellar of America

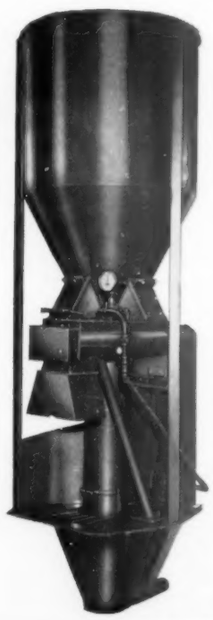
YOU SAVE 1 2 3 WAYS WITH THIS SECO

COMBINATION FEED MIXER | MOLASSES MIXER

You save on SPACE . . . you save on ORIGINAL COST . . . you save on OPERATION COST—all three!

And you have all the features of the SECO Vertical Mixer—together with the many advantages of the SECO Molasses Mixer—the mixer that cleans itself!

Easily installed . . . adaptable to any plant operation ... engineered for maximum production in minimum space . . . with big capacity (up to 4 tons per hour). Can be operated with electricity, tractor or single power unit.



WRITE FOR COMPLETE INFORMATION

SECO inc. GOODLETTSVILLE SECO TENNESSEE

GOODLETTSVILLE, TENNESSEE

Seco offers to the feed industry experienced mill Planning, Engineering and Manufacturing Service on equipment needs—including complete mill installations. Your inquiries are invited.

Comparison of Air and Mechanical Conveying

Air Conveying	CHARACTERISTICS	Mechanical Conveying
Maximum	CLEANLINESS	Fair to Moderate
Maximum	FLEXIBILITY	Poor
Maximum	SAFETY	Fair to Good
Moderate	CAPITAL OUTLAY	Low to Moderate
Minimum	MAINTENANCE	Fair to High
Compact	FLOOR SPACE	Bulky
Good to Excellent	ACCURACY	Good to Excellent
Moderate to High	POWER REQUIREMENTS	Low to Moderate

teristics of the various materials entering or leaving a mill vary widely. Although each material has its individual characteristics, it is possible to lump them into four major groups. Whole grains, such as corn and wheat, would constitute one group, soft mashes, mixed feeds, and meals, such as soy meal, would constitute a second group, flour and its related products a third group, and heavy products, or those which tend to bulk, constitute the fourth group.

The air conveying check list (see box) tabulates the information which will enable the designer of a pneumatic system to appraise his requirements most quickly and completely. It will also spotlight the points which the mill operator will wish to consider in determining the type of system he requires, and the functions which are required of the system.

Air handling systems can be used for other purposes than conveying. By heating or otherwise conditioning the air, they can be made to serve as dryers, tempering systems or coolers. A number of systems are currently in use for drying flour while it is conveyed. It should be noted that, in general, the use of a system for a supplementary or auxiliary purposes reduces its effective capacity. In connection with properly engineered bulk storage, it can enable a mill to pack out on an eight-hour basis, while producing on a 24-hour basis. Systems of this type pay for themselves quickly on the basis of reduced manpower requirements. Pneumatic systems can be integrated with scales and electronic controls for automatic batching and mixing. Not only does this save labor, but it also improves customer relationship to an unusual degree by reducing scheduling time. The use of air in connection with size reduction apparatus, such as hammermills, roller mills and cutters, results in a better output per horsepower hour. Air is a tremendous new tool of the future.

Minnesota Linseed Meal

Manufacturers and dealers everywhere use Minnesota Brand meal, pellets or grits. *Extra protein* sharpens appetites, boosts production. Wire, write or phone for latest quotes.

There's a QUALITY DIFFERENCE

MINNESOTA LINSEED OIL COMPANY
25—44th Ave. N. E. • Minneapolis 21, Minn.
SUNSET 8-9011

★ Buy and Sell Through WANT ADS ★

BOOST YOUR TONNAGE...
SAFEGUARD YOUR INVESTMENT!!!
Recommend and Finance
River Rest
Trade Name Registered
Large and Small
Broad Breasted White Turkeys

Team up the latest in breeding with the finest in feeding for conversion, finish and livability.

River Rest Broad-Breasted Large White toms weigh 26-28 lbs. at 26-28 weeks. Hens weigh 14-16 lbs. at 24-26 weeks. If desired, both hens and toms can be processed as early as 20 weeks of age with excellent finish.

River Rest Broad-Breasted Small Whites produce breast widths up to 6 inches on toms, and 5 inches on hens. Fryers weigh 6-7 lbs. at 12 weeks. Toms weigh 15-17 lbs. at 22-24 weeks, and hens weigh 9-10 lbs. at 20-22 weeks.

Processors prefer River Rest turkeys because they know the two strains make possible premium finish at almost any weight.

THE ONLY NATIONAL FRANCHISED TURKEY HATCHERY SYSTEM PRODUCING FIRST GENERATION POULTS EXCLUSIVELY, ASSURING UNIFORM QUALITY THROUGHOUT THE NATION

★ Top feed conversion records
★ High eviscerated yield
★ White feathers resist temperature extremes
★ Easy for growers to handle
★ Constant River Rest research keeps your feeders out in front
★ No leg weakness

Call or Write for Complete Information

RIVER REST TURKEY SALES INC.
ROY & JILL FERGUSON
SHAWNEE, OKLAHOMA

NELLIS
FEED COMPANY
Brokers
of Feed Ingredients
4010 Board of Trade Bldg.
WAbash 2-7322 TWX 623 Chicago 4, Ill.

VITAMINS
PRECISION BUILT FOR PRECISION NEEDS
VITINC VITAMINS, INC.
BASIC MATERIAL MANUFACTURERS and HEADQUARTERS FOR TECHNICAL INFORMATION
Write or Wire Your Requirements
VITAMINS, INC.
800 W. 58th Street, Chicago 21, Ill.

Worth Crowing About!!
FEEDSTUFFS WANT ADS

Tramp iron: Feedstuffs enemy No. 1!

Trap it with a low cost ERIEZ Plate Magnet

Why run the risk of tramp iron? It can contaminate your product—kill cattle and poultry, ruin your reputation. And it can start fires, damage expensive equipment, cause downtime.

Solution? . . . a non-electric, lifetime-powered Eriez Plate Magnet. Low in cost, these powerful magnetic units will snatch large pieces of iron as well as small iron particles from your lines. They ensure product purity, reduce maintenance and operating costs. Four magnetic strengths; standard sizes in 2" increments from 4" to 72". Easily installed in a line or suspended over it. Provides positive protection; quickly pays for itself.

ERIEZ HI-POWR MAGNETIC SEPARATORS

Completely non-electric, self-contained, easily installed. Magnetic strength is guaranteed for life. No operating expense; first cost is the last!

FOR FREE LITERATURE, write to

ERIEZ MFG. CO., 118DB MAGNET DRIVE, ERIE, PA.

Cwt. Measure of Grain Preferred by Majority Of Elevator Operators

LAFAYETTE, IND.—A majority of Indiana country elevator managers would prefer to change the standard unit of grain measure from bushels to cwt., a recent survey of 80 managers indicated.

Of those interviewed, eight would rather continue the bushel basis, 18 were indifferent and 54 expressed a preference for the cwt. measurement.

Results of the survey were reported by Dr. Paul L. Farris, department of agricultural economics, Purdue University, in a university publication.

Dr. Farris said there is presently a great deal of diversity in Indiana corn buying. The trading unit most used is 70 lb. from the beginning of harvest to Dec. 1, and 68 lb. thereafter. (This is the legal bushel for ear corn in Indiana.)

Trading Unit Used in Buying Corn From Farmers, 80 Indiana Elevators, 1957

Trading unit:	No. of elevators
70 lb. from beginning of new harvest season to Dec. 1; 68 lb. thereafter	25
Hundredweight	15
70 lb. year round	13
70 to 75 lb. depending on moisture	11
Shelled basis only, 56 lb.	10
70 to 72 lb. depending on moisture	3
70 to 80 lb. depending on moisture	1
70 to 74 lb. depending on moisture	1
75 lb. year round	1
	80

He pointed out that 15 elevators (19% of the sample) now buy corn by the cwt. Of these, 12 favor the cwt. for all grains, two were indifferent and one was opposed.

There was no elevator in the survey which bought all grain by the cwt.

"Corn buying practices tend to be similar within localities, but there are variations in all parts of the state," Dr. Farris reported. "Elevators that buy corn by the cwt. are chiefly in northeast Indiana. In the western and northwestern parts of the state, several elevators reported buying shelled corn only, and other managers in these areas vary the number of pounds to make a bushel according to moisture."

He said that elevators in southwestern Indiana buy corn on a 70-lb. basis the year around. In other areas of the state no single practice appears to predominate.

The survey revealed that the most outstanding opposition to the change was that elevator managers felt farmers would object. Many managers believed that even if they would change, they would need to compute on a bushel basis anyway as a service to farmers.

Other objections centered upon problems in making the change, such as setting up different grading standards and discount schedules.

Dr. Farris commented that the experience with the cwt. unit for corn by some Indiana elevators has been very successful. "Whether it would meet with equal success for elevators in other areas is not certain. It would apparently promote more uniformity than now exists in corn buying," the economist said.

You Sell The Best When You Sell GRAN-I-GRIT

THE GRIT WITH THE SHARPEST GRINDING EDGES EVER CUT

You are insuring your Future Profits when you sell GRAN-I-GRIT . . . the BEST Poultry Grit . . . because GRAN-I-GRIT will repeat in ever increasing volume for you.

That's WHY Dealers and Jobbers have become so enthusiastic about selling GRAN-I-GRIT.

GRAN-I-GRIT Research

FIRST Pioneered and Proved

That the Feeding of Larger Sizes of Grit Would Increase Profits

Because of GRAN-I-GRIT'S extensive Research Department, poultry raisers are now able to make INCREASED PROFITS THROUGH THE FEEDING OF LARGER SIZES OF GRAN-I-GRIT.

Larger sizes of GRAN-I-GRIT not only grind feed more efficiently but also keep the digestive tract open for full feed utilization by grinding feathers and fibrous litter that all poultry eat.

Small grit passing through the digestive tract, rather than staying in and working in the gizzard, takes space needed for feed.

Full Details on GRAN-I-GRIT'S New Feeding Program

There is a new GRAN-I-GRIT circular that explains in detail this new GRAN-I-GRIT feeding method that makes more money for broiler growers and egg producers. You, as a poultry grit dealer or jobber, should write for FREE copy today.

Nationally Advertised

Member of Granite Grit Institute of America

Sharper Grinding Edges Release More Nutrients From Your Feed

Those EXTRA valuable body building nutrients that GRAN-I-GRIT gives you by finer grinding of your feed are a great aid in speeding growth, body development and weight gains of broilers, and in getting more eggs for each pound of feed consumed. GRAN-I-GRIT will not dissolve and does not change the mineral balance of your feed.

GRAN-I-GRIT is packed in 10 lb. and King Size (App. 22 lbs.) Feeder Packs and 25, 50 and 80 lb. bags.

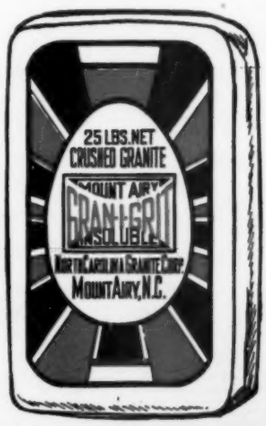
It's a Fact . . .

GRAN-I-GRIT Has *Eye Appeal* for Poultry of All Ages

Poultry must consume the proper amount of grit to get maximum results from feed and GRIT MUST HAVE EYE APPEAL before poultry will eat it.

Side by side tests have proven that chickens and turkeys of all ages prefer a light gray grit with black specks . . . THE GRAN-I-GRIT TYPE . . . as much as 10, 15 and even 100 to one over grit of other colors.

When poultry raisers know this fact they insist on GRAN-I-GRIT.



NORTH CAROLINA GRANITE CORPORATION

MOUNT AIRY NORTH CAROLINA

PENB Names Agency For Public Relations

CHICAGO — The Poultry & Egg National Board has named the public relations division of Western Advertising Agency, Chicago, to develop and add strength to its publicity and promotion programs until a replacement is made for Bronte Leicht, who resigned last month to assume similar duties with the Pure Milk Assn., Chicago.

According to an announcement by Lloyd H. Geil, general manager, the new setup will be under the direction of David L. Howlett, Western's director of public relations. The agency has been active in PENB programs for the past eight years.

Mr. Geil stated that PENB's promotion plans are proceeding without interruption.

FEED BUSINESS SOLD

NORTH ENGLISH, IOWA — Bill Hester has sold his Farm Service feed business to Leo Wade.

SCROGGINS GRAIN CO.

Phone FE 5-3913 — Teletype: MP 344

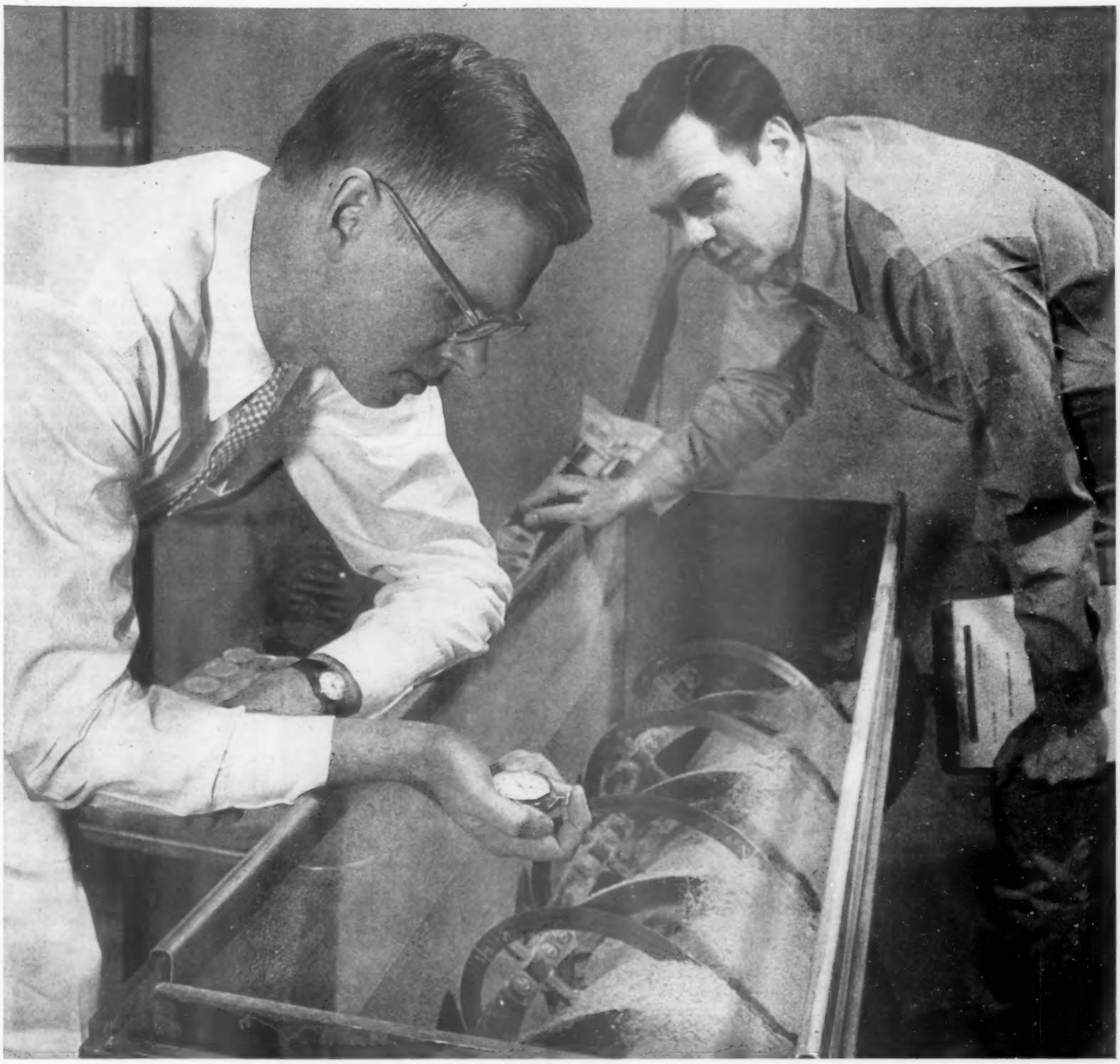
WHOLE and GROUND GRAINS and SCREENINGS

MINNEAPOLIS, MINNESOTA

Fleischmann's F·I·D·Y

IRRADIATED DRY YEAST

RICH IN VITAMIN D FOR FOUR-FOOTED ANIMALS



Purina engineers use a scale-model feed mixer to determine precise needs for milling operations.

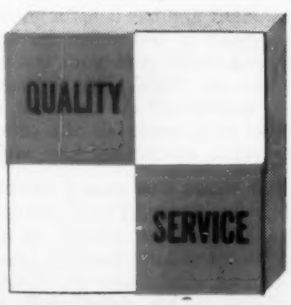
Making new feed formulas practical

"I can give you a feed formula, but I can't mix it . . . and neither can you." Those words were used recently by an agricultural scientist in telling a farmer that the days of scoop-shovel feed mixing are gone forever.

Today's livestock and poultry feeds have as many as forty ingredients . . . some in quantities the size of a match head to the ton. Vitamins . . . trace minerals . . . hormones . . . medication. Almost every year sees new feed factors that call for the pinnacle of precision in milling. That's why it takes an engineer to make the scientist's discoveries practical.

Nearly a decade ago, when Purina scientists introduced the earliest trace ingredients into Purina Chows, their engineering teammates worked with them to develop Purina's exclusive Micro-Mixing process. Purina Micro-Mixing is tested by a method so accurate that it can detect one part in ten million.

Work of this scientist-engineer team assures Purina Dealers of Chows that help deliver top results on the farm and make satisfied customers. It gives them Micro-Mixed concentrates to blend with the farmer's own grain into Check-R-Mix feeds that carry the latest livestock and poultry nutritional achievements.



PURINA...YOUR PARTNER IN SERVING ANIMAL AGRICULTURE

Carefully-Planned Program Results in Model Feed Mill

By Al P. Nelson
Feedstuffs Special Writer

When the Elgin (Iowa) Cooperative Co. feed mill burned in January, 1957, Keith Kohler, manager, and officers of the company faced a number of problems.

First of all, they wanted to build a new modern custom mill to replace the old. Second, they wanted to expand their mill facilities and get enough extra business to warrant it. Third, they needed to get additional financing to handle the project, and fourth, they needed to hold their present list of grinding and mixing customers until the new mill was built and put into operation.

Cooperation was secured from three other Farmers Elevator Service Co. dealers to help handle business after the fire, and an ad was published with this copy:

"We are still in business. The fire Monday night did not put us out of business, just because we have good neighbors.

"Three Felco dealers—at Clermont, Arlington and Elkader, have come to our rescue and promised any help we need, such as feeds, mixes, grinding, trucking, etc. We can supply anything you need, and for the next few days call the Keith Kohler residence, No. 2652.

"We are now located at the warehouse near the water tower.

"Thanks to all the fire departments and the townspeople for their help at the fire, their offers of assistance since the fire, besides other neighborly acts. We'll do our best to merit your good-will. Keith, Gerald and Woody."

This copy illustrates how neighborly businessmen and residents in a small town are when their cooperation is really needed.

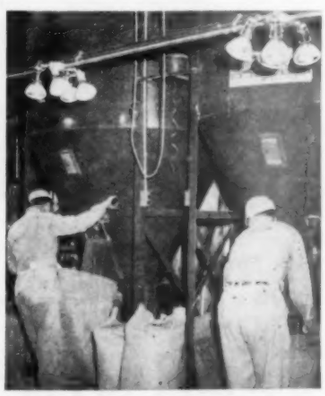
Mr. Kohler's next step was to purchase a used mobile milling unit in the area and to publish an ad advising farmers he would grind on the farm until the new custom mill was completed. This mobile milling service helped to fill the gap, according to Mr. Kohler. Thus, through the construction period of the mill, most farmers were given service, and the large portion of the customer list was served well and retained.

PERSONAL SERVICE—Part of the service provided by the Elgin (Iowa) Cooperative Co. for its customers is one portrayed here. At left is Keith Kohler, mill manager, helping a farmer figure his income tax while the farmer sips coffee. Mr. Kohler keeps invoices in a special box so that a farmer can see quickly how much he has purchased at the mill during the preceding year.

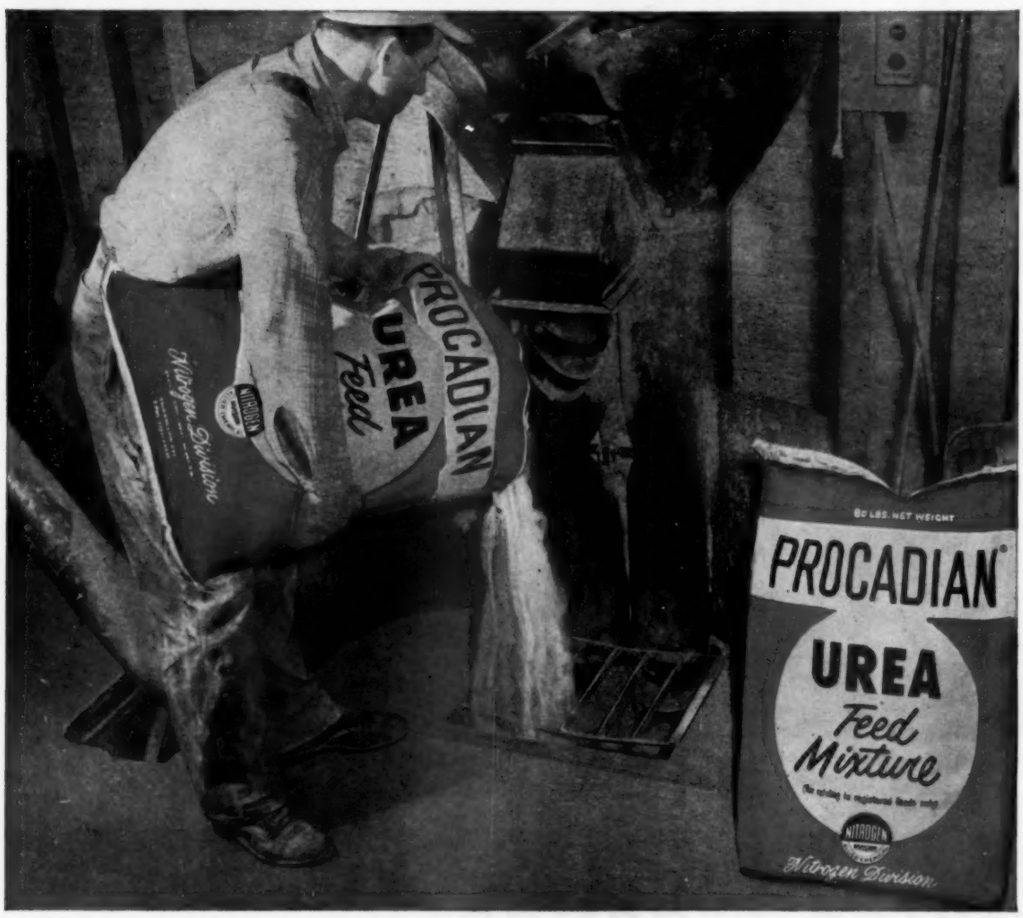
Next came the financing of the new mill buildings. The mill building, including a 32 by 40-ft. mill and a 32 by 100-ft. warehouse and office, plus a 16 by 40-ft. covered driveway, cost $28,000. It was built of steel sheets on wooden studs. The equipment cost was around $30,000.

A local man advised officers of Elgin Cooperative Co. and Mr. Kohler to try to sell building notes to customers and others. So the firm printed up 200 notes and Mr. Kohler began approaching customers with them. Very shortly he sold 38 notes, totaling $41,500 with an average of $1,100 per customer. The notes run for 10 years at 5% interest and the security is the mill building.

"We were surprised that the notes went so well and in such large amounts," said Mr. Kohler. "I guess it shows that the public has faith in



MIXING SERVICE—Two 2-ton mixers are used by the Elgin (Iowa) Cooperative Co. to provide service for its customers. If the grind and mix load isn't over two tons, the firm can handle three customers at a time. Note the battery of heat lamps used to provide heat for mill workmen during cold weather. The mixing room has no heat, but the firm has heat in the offices and small farm supply store.



Use PROCADIAN® for PROFITS!

The high concentration of protein values in PROCADIAN Urea gives you and your customers many valuable benefits in high-quality mixed feeds for cattle and sheep. This valuable source of protein for ruminant animals helps improve digestibility of the roughage in the ration for low-cost milk and meat production. And your customers know that when you use PROCADIAN Urea, you are better able to provide all the minerals, vitamins, antibiotics and other essentials of a complete ration in a concentrated, economical feed supplement.

You get these and many other benefits when you buy free-flowing PROCADIAN Urea. You get PROCADIAN Urea quickly in quantity, packed in moisture-resistant bags for good condition and easy mixing. And powerful PROCADIAN advertising helps you sell customers by advising them to "look for UREA on the tag." To make better feeds at low cost, always use PROCADIAN Urea.

Write or telephone

Allied Chemical **NITROGEN DIVISION**

Hopewell, Va., P.O. Drawer 131	Cedar 9-6301
Ironton, Ohio, P.O. Box 98	Ironton 8-4366
Omaha 7, Neb., P.O. Box 166	Bellevue 1464
Raleigh, N. C., 16 W. Martin St.	Temple 3-2801
Columbia 1, S. C., 1203 Gervais St.	Alpine 3-6676
Atlanta 3, Ga., 127 Peachtree St., N.E.	Jackson 2-7805
Memphis 9, Tenn., 1929-B South 3rd St.	Whitehall 8-2692
Columbia, Mo., P.O. Box 188	Gibson 2-4040
Indianapolis 20, Ind., 6060 College Ave.	Clifford 5-5443
Kalamazoo, Mich., P.O. Box 869	Kalamazoo 5-8676
St. Paul 4, Minn., 45 N. Snelling Ave.	Midway 5-9141
San Francisco 4, Cal., 235 Montgomery St.	Yukon 2-6840
40 Rector Street, New York 6, N. Y.	Hanover 2-7300
Export Sales Office, New York 6, N. Y.	Hanover 2-7300

KAFIR & MILO
Largest Dealers in Southwest
MID-CONTINENT GRAIN CO.
Board of Trade Victor 2-4671
KANSAS CITY, MO.

SPECIFY
Columbia Calcium
COLUMBIA QUARRY CO.
1007 Washington Ave
ST. LOUIS 1, MO

FROM THE ASHES—This is the new Elgin (Iowa) Cooperative Co. feed mill, built recently to replace one destroyed by fire in 1957. The firm, while rebuilding, got the cooperation of Felco dealers in neighboring towns in providing feed, mixes, grinding, trucking and similar services and won the support of its members in the erection of a new mill. The new mill is designed to provide service for more customers at a faster pace.

us. Most of the note buyers are customers, too."

Into the new mill went two Prater mixers, capacity 2 tons each, and a Prater 6AC mill, 75 h.p. Other equipment includes a Burrows weigh buggy, a conveyor, a Prater auger, a Barnard & Leas elevator leg and overhead conveyor.

A battery of electric heat lamps is used at the two mixers to provide heat during the cold days, as the mixing room has no heat. There is electric heat in the offices and small farm display store.

Modernization Pays

Has this modernization paid off? Keith Kohler says the new mill was opened last July, and during the first four months of operation the mill did $10,000 more business than the same four months the year before. More new customers are being secured, due to better service.

"We now can take care of many more customers in shorter time, due to this efficient machinery," states Mr. Kohler. "In fact, if the grind and mix load isn't over two tons, and it generally isn't, we can handle three customers at one time. One can dump his grain. The other can have his grain ground and mixed, while the third can be loading out of the second mixer. We figure that we can handle the average ton grind in about 15 minutes, if the corn is shelled. On hog feed, the grind and mix time is often 10 minutes."

Formerly, Mr. Kohler points out, the firm had two mixers of one-ton capacity each, and when a farmer came in with a two-ton grind he would tie up both mixers and slow up the waiting line.

Grinding charges are 12¢ cwt., with an extra 5¢ cwt. for mixing. There is a 4¢ charge for shelling corn.

The grinding and mixing department handles about 3,500 tons of feed at the present basis. Before the fire the mill did about $450 per month in grinding and mixing. It now does

SPECIAL BINS—The Elgin (Iowa) Cooperative Co. feed mill contains eight steel bins which are used to store concentrate, grains and soybean meal. They are pictured above. Each holds 10 tons. Keith Kohler, manager, designed the bins and had them built locally to his specifications.

ROLLED OATS

GROUND OAT GROATS
FEEDING OATMEAL FLOUR
PULVERIZED WHITE OATS
PULVERIZED FEED OATS
HY-QUALITY OATMILL FEED
REGROUND OAT FEED
COARSE GROUND OATS

WERTZ FEED PRODUCTS
SIOUX CITY, IOWA
Phone 20545

Pittsburgh Plate Glass Co.
34% LINSEED MEAL
MEAL SALES—424 Flour Exchange Bldg., Minneapolis 15
Telephone FEderal 8-8469
PLANT AT RED WING, MINNESOTA

LA BUDDE
MILWAUKEE, WIS.
MALT SPROUTS
BREWERS GRAINS
DISTILLERS GRAINS
BEET PULP
AND 44 OTHER FEEDS

Announcement to our Nopco-Pak Customers

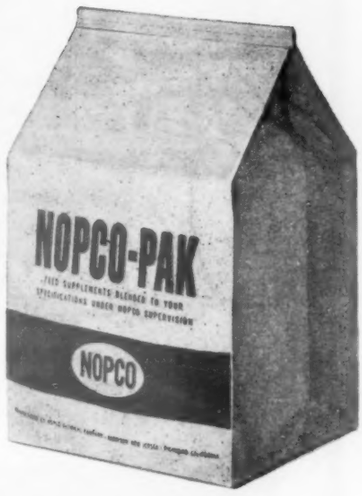
twice as effective 2 twice as effective

NOPCAY® TYPE V IS NOW USED IN ALL NOPCO-PAK® FORMULAS

twice as effective 2 twice as effective

This is good news, important news, for all of you who have had a chance to study the advantages of using this remarkable new vitamin A in your feed supplement.

Nopcay Type V, a new Micratized® Vitamin A, is twice as effective as oil forms of vitamin A, whether natural or synthetic.



twice as effective 2 twice as effective

Nopcay Type V remains stable because it is Micratized, whereas other forms of vitamin A may rapidly deteriorate. The combined effect of increased stability and biological effectiveness can result in a total biological response with Nopcay Type V which is 3 or 4 times as great as that obtained from other forms.

Nopcay Type V is a development of great importance for the whole feed industry and one more convincing reason why Nopco-Paks are your best buy.

NOPCO CHEMICAL COMPANY NOPCO
Harrison, N.J., and Richmond, Calif.

Basic producers of Micratized® Vitamins A and D, niacin, calcium pantothenate, choline chloride, and other products

PLENTY OF WAREHOUSE SPACE—When the Elgin (Iowa) Cooperative Co. rebuilt its feed mill, it went to customers with notes to raise enough money to finance the mill. In this way $41,500 was raised. The company spent $28,000 on building and $30,000 in equipment. Part of the building, which is built of steel sheeting on wood studs, is this warehouse, 32 ft. wide by almost 100 ft. long.

about $775, reflecting the greater capacity of the new machinery.

Mr. Kohler reports that prices charged for mixing and grinding are reflected in the profit statement of a mill on this department. At a trade meeting where he was one of a custom mill panel, Mr. Kohler said that it was reported by one operator that he got 35¢ cwt. for grinding and mixing, while another man from another state reported a 5¢ cwt. charge. Naturally, whether a mill makes a profit from grinding and mixing is going to be determined largely by the charges made for such service.

This mill has four employees, but the labor of just one is charged full time to the mixing department. About 60% of the feed sold here goes through the custom mill.

"With our old machinery, we got a little nervous when 10 customers lined up for grinding and mixing service, because we knew some of them would have to wait a long time," states Mr. Kohler. "With this new mill we don't worry, for we know we can be working on three average orders practically at one time. The farmers know that, too, and we know our grinding and mixing volume is going to continue to mount due to this factor alone."

Mr. Kohler says that the average farm here has about 200 acres and that agricultural interests are quite balanced. He sells dairy, cattle, hog and poultry feeds in about equal quantities. The average dairy herd in the section is about 20 cows.

While the firm does not deliver in bulk, about 50% of the feed processed

Howard L. Fisher Martin C. Price

SALES MANAGERS — Howard L. Fisher and Martin C. Price have been appointed district sales managers for Fair-Acre Feeds, a division of Lindsey-Robinson & Co., Inc., Roanoke, Va. Mr. Fisher will cover the central Virginia territory with headquarters in Lynchburg, and Mr. Price will work in south-central Georgia and will continue to live in Smyrna, Ga. Mr. Fisher, a native of Callaway, Va., is a dairy husbandry graduate of Virginia Polytechnic Institute, holding both B.S. and M.S. degrees from that school. Mr. Price is a native of Stapleton, Ga., and a graduate in agriculture from the University of Georgia. He was previously a sales representative for the Burroughs Corp., and has spent six years teaching vocational agriculture in Florida and Georgia.

TWINE - WIRE HEADQUARTERS

J. C. SHUFORD COMPANY

The RELIABLE SOURCE for ALL YOUR NEEDS on:

EUROPEAN BALER & BINDER TWINE—"Dutch King", "Volto", "Shuco", "Red Setter"
Also twine especially made for tying round bales
MEXICAN BALER & BINDER TWINE—"Bulldog", "Modelo"
DOMESTIC BALING WIRE—"Shuco"

Volto

Dutch King

"If it's tied see Shuford"

216 W. Kinzie Street, CHICAGO 10, ILLINOIS

37% INCREASE IN
TEXO POULTRY FEED SALES
FOR 1957!

Thanks to:
*A deserving, working group of Texo Dealers. Many were handling competitive feeds until just recently. Then they switched to Texo and took advantage of Texo's programs.

*A constant, scientific formulation program. Texo Dealers can be assured that Texo Feed is the best feed it is possible to buy.

*A well conceived advertising, merchandising and sales promotion program. This program includes local dealer promotions as well as regional promotion.

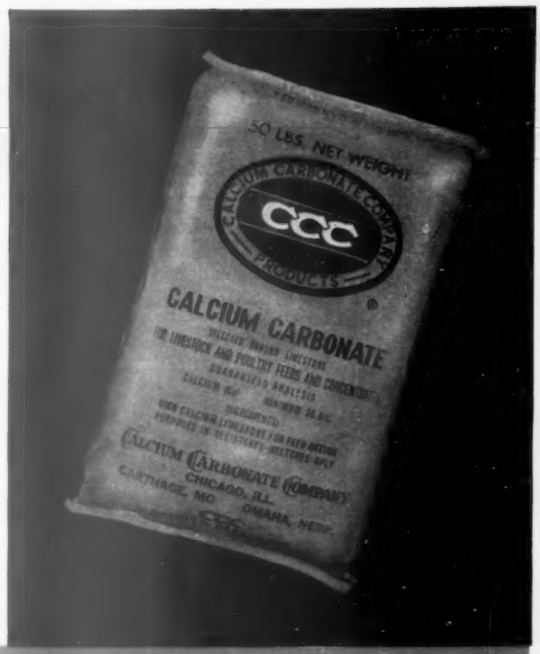
FEED TEXO

QUIK CHIK

BURRUS FEED MILLS BOX 1688 FORT WORTH, TEXAS

TODAY

10 YEARS AGO



CCC *constant* HIGH PURITY CALCIUM CARBONATE MAKES *better balanced** FEEDS

Let CCC RESEARCH *Work for You!*

- Calcium Carbonate—any desired grind
- Electro (free-flowing) Calcium Carbonate
- Iodized Calcium Carbonate—any desired iodine level
- Manganesed Calcium Carbonate—any desired manganese level
- Iodized-Manganesed Calcium Carbonate—any desired iodine and manganese levels
- Trace Mineral Premixes
- Shellmaker (calcium grit)

Write, Wire or Phone

Calcium Carbonate Company

Pioneer Producers of Trace Element Products

520 South 4th Street • Quincy, Illinois

323 Woodmen of the World Building, Omaha 2, Neb., Box 409, Carthage, Mo.

*

Feed manufacturers are adjusting their formulations in view of modern nutritional developments. For instance, the growth rate of chickens is twice what it was ten years ago. The proper balancing of feed is becoming ever more important, and to balance feed accurately requires that the components be of a constant high quality . . . The Calcium Carbonate Company with its laboratory facilities and deposits of Calcium Carbonate of constant high purity offers feed manufacturers the best possible source of calcium for making feeds of highest nutritional value for all farm animals.

Before you build or remodel
your **MILL** or **ELEVATOR**
• Milling Plants • Storage • Grain Elevators • Warehouses
FRAME or FIREPROOF CONSTRUCTION
Talk to **HOGENSON** Construction Co.
722 FLOUR EXCHANGE MINNEAPOLIS 15, MINN.

KEES & COMPANY
Processors of DRIED FISH SOLUBLE PRODUCTS
A "MUST" IN EVERY SWINE OR POULTRY RATION
Call or write for complete information and price
327 S. La Salle St., Chicago 4, Ill. Phone HArrison 7-1528

WILHOIT LABORATORY
Will Protect Your Quality
Complete analysis service on your
FEEDS and FEED INGREDIENTS
Serving the industry since 1915
619 Flour Exchange FE. 3-2994 Minneapolis 15, Minn.

goes bulk into the farmers' trucks. They get a 50¢ ton discount for taking the feed in this manner. Most farmers then scoop this feed out of trucks into bins when they get home. The cooperative has no bulk truck, but expects to get into bulk delivery within a year or so.

The mill also contains eight steel bins which hold 10 tons each. They are used to store concentrate, grains and soybean meal. Mr. Kohler designed the bins and had them built locally according to his specifications. One bin holds five tons of poultry concentrate and there is hog concentrate in two other bins. The remainder of the bins are used for grain storage.

"With this bulk concentrate we are able to handle a lot of feed processing and much faster than the old method," Mr. Kohler points out. "You can see we are working toward a complete bulk operation for the farmer who wants that type of service."

Perhaps the firm's biggest single sale promotion is its annual spring event called Silver Dollar Day. During this sale day, a silver dollar is given with each $25 purchase. Last year more than $10,000 worth of merchandise and service were sold on that day, and this record got publicity in a local newspaper. About 320 customers made purchases on that day entitling them to the silver dollars.

Advertising Program

About 1% is spent on advertising at this mill. A newspaper ad is used almost every week, plus some direct mail. In addition, some radio advertising is used. Mr. Kohler also helps sponsor high school basketball games on radio with other advertisers.

"We have coffee-and-doughnut feeder education meetings," says Mr. Kohler, "and they are quite successful. Sometimes they are held at the mill and other times at country halls. We get between 40 and 50 people at such meetings."

Farmers who need records for their tax forms can get them at this cooperative. Mr. Kohler keeps them handy, so that a farmer can quickly see what he bought during that year and what items they were. "They appreciate this type of service," Mr. Kohler said.

The cooperative has a small, but neat, farm supply store which features seeds, twines, farm chemicals, electric fence and other items.

"We're glad we got on our feet again after that fire," states Mr. Kohler, "and we look confidently to the future, thanks largely to our equipment and better ability to serve our customers."

DEODORANT SAVES NEWBORN LAMBS

GREAT BEND, KANSAS—Science has stepped in to confuse the maternal instincts of mother sheep and thereby save the lives of newborn lambs. Frequently ewes with twins will neglect the lamb born first and concentrate on the later arrival. Mrs. LaVerne Case, Great Bend, discovered that a new air freshener (Johnson's Glade) that destroys odors could be used to correct this maternal neglect. When the deodorant was sprayed on the neglected lamb and also on the ewe's nose, the ewe gave equal attention to each offspring. Mrs. Case says the trick also works when two ewes have lambs, one with twins and the other with a single, and the single lamb dies. In this case one of the twins is sprayed with the pressurized product and given over to the lambless ewe, who promptly accepts it. By the time the deodorizing effect of the spray has disappeared, a lasting family relationship has been established. The spray is made by S. D. Johnson & Son, Inc.

Tenox BHT AGRICULTURAL GRADE

Before developing Tenox BHT-Agricultural Grade, Eastman consulted many people in the feed industry, to discover exactly what they wanted in an antioxidant for poultry feed. We asked them about their storage problems... we studied their blending machinery and methods... we asked their advice on the best particle size.

Using this information, coupled with our knowledge gained through years of experience in food antioxidants, we developed the new Agricultural Grade of Tenox BHT, designing it specifically to meet the needs that were expressed to us.

As a result, Tenox BHT-Agricultural Grade is supplied as free-flowing, non-dusting powder, in a particle size comparable to that of other feed components. It blends rapidly and homogeneously in mixing operations, and does not separate during handling or storage.

Tenox BHT-Agricultural Grade improves pigmentation, protects the vitamin content of your feed, and safeguards poultry against deficiency diseases such as encephalomalacia. To poultrymen, this means bringing more chicks to faster and more profitable maturity.

Since this is a new form, especially prepared for feed use, be sure you specify Agricultural Grade when ordering. For additional information concerning Tenox BHT-Agricultural Grade, write to EASTMAN CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; New York City, 260 Madison Avenue; Framingham, Massachusetts, 65 Concord Street; Cincinnati, 1813 Carew Tower; Cleveland, 13212 Shaker Square; Chicago, 360 North Michigan Avenue; St. Louis, 10 South Brentwood Boulevard; Houston, 1300 Main Street. **West Coast: Wilson Meyer Co.,** San Francisco, 333 Montgomery Street; Los Angeles, 4800 District Boulevard; Portland, 520 Southwest Sixth Avenue; Salt Lake City, 73 South Main Street; Seattle, 821 Second Avenue.

PROVED ON-THE-FARM
VICTOR FEEDS
THE CRETE MILLS
CRETE, NEBRASKA

DISTRIBUTED BY THE FOX COMPANY
FOXCO
QUALADEE
A and D
VITAMIN OIL
NEWFIELD NEW JERSEY
"PRODUCTS OF PROGRESS"

In a village election in rock-ribbed Republican Vermont, one Democratic vote was discovered before the tabulation had been completed. Election officials stopped to ponder this marvel, then decided to complete the count. Another Democratic vote turned up.

"That settles it," said one official. "That dad-burned fool voted twice."

◆ ◆ ◆

Woman, trying on a fur coat, said to the salesgirl: "I wish it were called something besides broadtail. My husband fancies himself a comedian."

◆ ◆ ◆

Uncle Ezra was making his first visit to the West Coast. His relatives, eager to impress him with the wonders of their adopted home, drove here and there, pointing out places of interest. "There," they assured him, "is a wonderful view of the mountains, but the fog hides 'em today. And from right here, you get a wonderful view of the bay—on clear days."

After a couple of hours, Uncle Ezra remarked dryly, "Mebbe we ain't got so much scenery back in the Corn Belt but, by golly, you can see it."

◆ ◆ ◆

She—"If wishes came true, what would you wish for?"

He—"Gosh, I'm afraid to tell you."

She—"Go ahead, you fool, what do you think I brought up this wishing business for?"

◆ ◆ ◆

"Would you mind repeating what you just said?" the psychiatrist asked his new patient.

"I said," boomed the man, "for some reason nobody seems to like me. Why don't you pay attention, you fathead?"

◆ ◆ ◆

Two camera bugs draped over a Paris bar discussing their experiences: "This morning I saw an old crone huddled beneath a bundle of rags," one said. "She was hungry and homeless. She told me she was once a countess but lost her family and money and now was a wretched old woman with nothing to live for."

"The poor thing," said the other photographer. "What did you give her?"

"Well, it was sunny," the first replied, "so I gave her f11 at 1/100th."

◆ ◆ ◆

A burly fellow walked up to the teller in a Long Island bank one quiet afternoon, took a quick look around and muttered: "This is a stick-up! One scream and I'll fill you full of lead—now hand over all the dough."

The little bank clerk gasped, but managed to pull himself together.

"C-could you k-kindly go to the n-next window?" he whispered. "I'm on my l-lunch hour."

◆ ◆ ◆

Explorer: "While in the Amazon Valley I saw a bird which lays square eggs and talks."

Admirer: "What does it say?"

Explorer: "Ouch!"

"It's a new-fangled idea for pre-stuffed turkey—I'm getting SUCRO-FLAVORed Feed for my last meal"

© 1958 by
FLAVOR CORPORATION OF AMERICA
3037 N. CLARK STREET • CHICAGO 14, ILLINOIS

good news gets around ..

Shellbuilder's Profitable

Shellbuilder Company
Melrose Bldg., Houston

THE MAN WITH THE MULTIWALL PLAN

UNION PACKAGING SPECIALIST BOB BUCK

lowers customer's bag costs $35,000 annually

A little weight reduction can go a long way in trimming Multiwall costs. Union Packaging Specialist Bob Buck demonstrated just how far during a study of one company's bagging operation.

The company had been using a baler bag of 160# total basis weight. Union's analysis proved that a 70/70 bag would be equally effective. The 20# reduction resulted in a savings of $35,000 a year.

This economy came through Union's 5-Star Packaging Efficiency Plan. Among the other improvements were: (1) A new, revised specifications manual which simplifies and streamlines inventory control. (2) Standardization of all bag printing. This assures delivery of completely uniform print copy from the firm's various suppliers.

Union's plan is producing thousands of dollars worth of savings for Multiwall users, large and small. It might point the way to a greater return on your packaging investment. Write for details.

Union Multiwall Recommendations are based on this 5-Star Packaging Efficiency Plan

- DESIGN
- EQUIPMENT
- CONSTRUCTION
- SPECIFICATION CONTROL
- PLANT SURVEY

Better Multiwall performance through better planning

union camp

UNION'S PACKAGE ENGINEERING DEPARTMENT will study your Multiwall bagging methods and equipment and make appropriate recommendations, regardless of the brand of Multiwalls you are now using.

UNION MULTIWALL BAGS

UNION BAG-CAMP PAPER CORPORATION
233 BROADWAY, NEW YORK 7, N. Y.

Worth Looking Into

New Products
New Services
New Literature

This reader service department announces the development of new and improved products, new services and new literature offered by manufacturers and suppliers. Claims made in this department are those of the firm concerned. Use the accompanying coupon to obtain the desired information.

No. 6021—Feed and Grain Blower

Literature describing the "Montana feed and grain blower" has been prepared by the manufacturer, Truck Grain Blower Co. The blower fits any make or size truck or pickup it is

claimed. It is PTO or v-belt driven and can unload approximately 100 bu. of grain or feed in 10 min., it is claimed. By adding extra pipe, material may be lifted more than 20 ft. Secure details by checking No. 6021 on the coupon and mailing it to Feedstuffs.

No. 6005—Fork Lift Truck

High stacking ability, plus easy access to low headroom areas, are claimed for the model 460 "Towmotor" fork lift truck equipped with "Triple Lift Mast." The manufacturer, Towmotor Corp., states that "Mast's" over-all lowered height of 71 in. permits safe entry into rail cars and low-ceilinged storage areas. The maximum lift is 144 in. Check No. 6005 on the coupon and mail it to secure details.

No. 6010—Screw Elevator

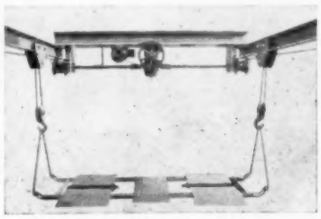
The Fort Worth Steel & Machinery Co. is introducing its new "Super-Lift" screw elevator featuring DSD (dry shaft drive)—a screw elevator drive head "from which oil will not leak" and contaminate bulk materials being handled. Check No. 6010 on the coupon and mail it to secure details.

No. 6029—Grain Aeration Manual

A manual entitled, "The Story of Aeration," has been prepared by the Rolfes Grain Aeration Companies. Numerous pictures, drawings and illustrations point out principles of grain aeration and Rolfes installations. Secure the manual by checking No. 6029 on the coupon and mailing it to Feedstuffs. Please print or type name and address.

No. 6014—Truck Hoist

The Triumph Division of the C. O. Bartlett & Snow Co. has added a heavy-duty truck hoist to its line. The hoist is available in three standard sizes having gross vehicle weight inclined dumping capacities of 15,000 lb., 25,000 lb. and 37,500 lb., respectively. The hoisting mechanism is



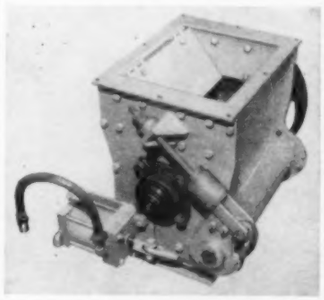
stationary. The design leaves the cenfer area of the driveway clear so the cab of a truck can be lifted up between the I-beams if necessary. The hoist's motor is totally enclosed. Check No. 6014 on the coupon and mail it to secure details. Please print or type name and address.

No. 6018—Antioxidant Bulletin

A new comprehensive technical bulletin on the use of Hercules' high purity BHT antioxidant, "Dalpac," for stabilizing fish meal is now available from Hercules Powder Co., a basic producer of BHT. Secure the bulletin by checking No. 6018 on the coupon and mailing it to Feedstuffs. Please print name and address.

No. 6019—Cob Crusher

Details of the cob crusher manufactured by The Andersons are described in new literature prepared by the company. The company states that "six newly-designed crushers pro-



cessed a total of more than eight million bushels of cobs in a two-year period with only negligible damage." The unit eliminates shear pin damage, it is claimed. Check No. 6019 on the coupon and mail it to Feedstuffs.

No. 6022—Hammermill Literature

New literature describing "Bryant Double Duty" hammermill has been prepared. A capacity chart and complete details are available. Check No. 6022 on the coupon and mail it to Feedstuffs. Please print or type name and address.

No. 6028—Feed Processing Publication

The publication of a bi-monthly magazine dealing with equipment and systems for feed processing has been announced by Sprout, Waldron & Co., Inc. The publication, called "Pointers," is available on request. Check No. 6028 on the coupon and mail it to Feedstuffs.

No. 6031—"Snap-In" Grease Seal

The Landers Mill Manufacturing Co. has announced a new develop-

ment in pellet mill products—its "Snap-In" grease seal. It can be installed in a few seconds without the use of either press or hammer, it is claimed. No spot welding is needed. The seal fits into the cover plate of all pellet mill rollers of this type. Check No. 6031 to secure details. Please print name and address.

No. 6023—Punch Card Reader

Product Data Sheet 5705, offered by the Richardson Scale Co., describes the new PCR control (punched card reader) for automatic control of blending, batching and proportioning operations. Check No. 6023 on the coupon and mail it to Feedstuffs. Please print or type name and address.

No. 6034—Drop-Bottom Mixer

Hayes & Stolz Industrial Manufacturing Co. announces a new "Drop-Bottom" mixer for all types of mixing which is said to require reduction of contamination to an absolute minimum. The 25-cu. ft. mixer is a

Send me information on the items marked:

☐ No. 6005	☐ No. 6021	☐ No. 6028
☐ No. 6010	☐ No. 6022	☐ No. 6029
☐ No. 6012	☐ No. 6023	☐ No. 6031
☐ No. 6014	☐ No. 6024	☐ No. 6034
☐ No. 6018	☐ No. 6025	
☐ No. 6019	☐ No. 6027	

(PLEASE PRINT OR TYPE)

Others (list numbers) .....

NAME .....

COMPANY .....

ADDRESS .....

CLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL

FIRST CLASS PERMIT No. 2
(Sec. 34.9, P. L. & R.)
MINNEAPOLIS, MINN.

BUSINESS REPLY ENVELOPE
No postage stamp necessary if mailed in the United States

POSTAGE WILL BE PAID BY—

Feedstuffs

P. O. Box 67,

Reader Service Dept. Minneapolis 1, Minn.

52 LESSON
FEED SALES TRAINING COURSE

BEST SELLING IDEAS FOR FEED SALESMEN AND GOOD DEALERS

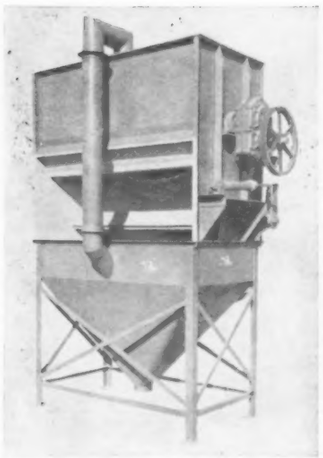
Now at a reduced cost you can get the same Training Course that hundreds of leading Feed Executives have purchased. You get 15 Books on "How to Sell Feed Today" . . . 12 Books on "Animal Health Problems" and 25 Books on "Know the Answers Quiz" . . . all 52 lessons for $19.24, while the supply lasts. Buy them for your Salesmen and Dealers. 5 sets at $15.00 each . . . 10 sets at $13.00 each . . . 25 sets at $12.00 each.

No words or pictures can make you realize the helpfulness of this Training Course. You must SEE and examine it to appreciate its value of over $100.00. That's why we offer to send the entire 52 lessons on 10-day examination. Send coupon today to TOBIAS ENTERPRISES, 326 N. Michigan Ave., Chicago 1, Ill.

MAIL COUPON TODAY
FREE 10-DAY EXAMINATION
ORDER the 52 LESSONS TODAY for only ... $19.24

Tobias Enterprises
326 N. Michigan Avenue, Chicago 1, Illinois
Please send on 10 DAYS FREE EXAMINATION one complete set of your 52-lesson Sales Training Course plus the 15 Quiz Questionaires on "HOW TO SELL FEED TODAY". Within 10 days I may return it without obligation . . . or you may bill me $19.24 for the complete set which you send.
It is agreed that if we order more sets for our Salesmen and Dealers we are to only pay the quantity rate for the first set.

Firm Name _____
Address _____
City and State _____
Individual _____



heavy-duty unit. The drop bottom arrangement does not allow any material to remain in the mixing unit at all, it is claimed. The hopper and stand shown are a typical arrangement and holding bins can be designed to suit. The unit is available in stainless steel and in sizes through two-ton capacity. It is ideal for pre-mixing of feeds, or for foodstuffs, chemicals, fertilizers or seed. Complete information will be sent if you will check No. 6034 on the coupon and send it to Feedstuffs. Please print or type name and address.

No. 6024—Colony Cage

Details of the "Colony Cage" plan for small laying flock owners have been announced by the Oakes Manufacturing Co. Literature describing the plan is available and states that 50 to 80% more birds are permitted in the same area required by a floor flock. Secure the literature by checking No. 6024 on the coupon and mailing it to Feedstuffs.

No. 6027—Pneumatic Bulk Feed Trailer

Details offered by the pneumatic-unloading Forster bulk trailer, made by the Forster Manufacturing Co., have been announced. Features claimed are: Elimination of unloading delays, low clearance, even load

distribution, and water-tight and heavy-duty construction. Sizes range from 100-400 cu. ft. capacity. Secure details by checking No. 6027 on the coupon and mailing it to Feedstuffs. Please print or type name and address.

No. 6025—Feed Ingredients Catalog

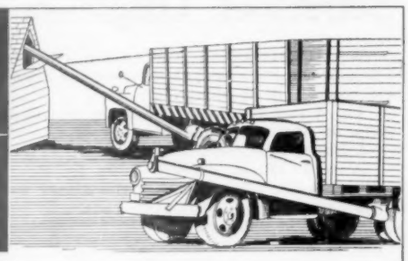
A 16-page permanently bound feed ingredients catalog is available from Merck & Co., Inc. Information on Merck's microingredients, services to the feed manufacturer, custom mixes for private formulations and other items of interest are in the catalog. A copy is obtainable by Checking No. 6025 on the coupon and mailing it to Feedstuffs. Please print or type name and address.

No. 6012—Saccharin

The Monsanto Chemical Co. has announced details of the use of saccharin as a sweetener for pig feeds. Commercial-scale feeding trials now are underway to verify favorable experimental results, according to the company. Check No. 6012 on the coupon and mail it to Feedstuffs to secure details. Please print or type name and address.

YOU CAN DELIVER BULK FEEDS AND SACKED FEEDS ON ONE TRIP

EASILY INSTALLED ON YOUR TRUCK



THE NEW LOW COST

SIMONSEN UNLOADER

Cut truck trips and costs by delivering both bulk and sacked feeds on the same trip. Delivers feed up to 12 ft. from ground — 16 ft. delivery available. The new Simonsen Unloader is easy to install on your present truck.

Send For Literature And Prices

S

SIMONSEN MANUFACTURING COMPANY

The Number One Name in Bulk Feed Delivery Equipment

Dept. F. S. QUIMBY, IOWA

WHY You'll make More Profit selling

®

Merchandised For Feed Store Profits

1. No Cut Throat Competition

Not a loss leader—Staley's Vitality is sold through feed, pet and independent stores. You can get a better than average markup *all the time* on *every bag!*

2. EASIER Quantity Discounts

Vitality and Staley's—the only *complete* line (Kibbles, Whole Biscuit, Instant, Granular, Cubes, Homogenized, Meal, and Bites) of nationally advertised dog foods from a single source in *one* shipment. Saves multiple ordering . . . eliminates unbalanced stocks . . . adds up to quantity discounts quicker.

3. EASIER To Sell

Vitality is the best known and most respected brand with men who buy dog food in big quantities—kennelmen, breeders, and hunters. National advertising, local and field trial promotions keep Vitality moving. It's the only dog food with "Specialized Diets" to fit the individual needs of each dog—poodle or pointer, hunter or pet. Staley's Vitality fits in with your business as a "feed" man.

A. E. STALEY MFG. CO. / DECATUR, ILLINOIS

MAIL COUPON TODAY FOR FULL DETAILS ON CURRENT SALES PROMOTION

You can make more profit selling Vitality—and you can *prove* it! Every bag is priced to give you more profit and a selling edge on competition. Clip and mail the coupon today!

A. E. STALEY MFG. CO.
Decatur, Illinois

Give us the full story on the special current sales promotion and why we can make more profit selling Staley's Vitality Dog Foods.

Name_____

Address_____

City_____ State_____

We buy Dog Food in these quantities: ☐ 1-ton; ☐ 5-tons; ☐ 10-tons; ☐ 20-tons.

More and More . . . Feed Mills Are using More and More Stabilized ANIMAL FATS and MEAT PROTEINS

Find Out Why . . . WRITE NATIONAL RENDERERS ASSOCIATION

Organized In 1933
30 N. LA SALLE ST.
CHICAGO 2, ILL.
Phone FR 2-3289

Use FEEDSTUFFS Want Ads for RESULTS

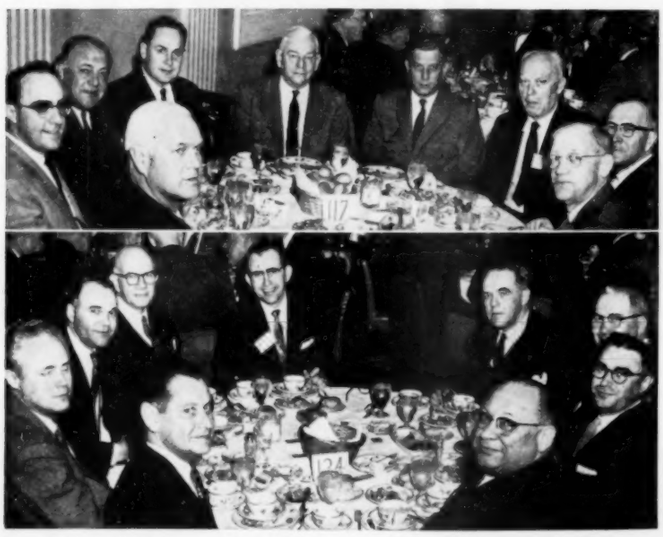
Secretaries, Congressmen Get Together

WASHINGTON—A joint informal dinner meeting of state secretaries of feed and grain associations and more than 100 members of Congress was held recently in Washington.

The dinner followed a three-day workshop in Washington for the secretaries, at which Clif Anderson, secretary of the Farmers Elevator Assn. of South Dakota, presided. He is chairman of the Secretaries Circle.

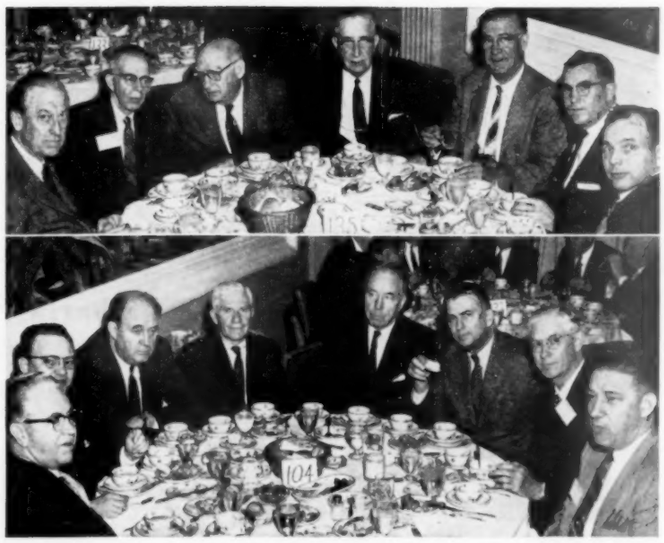
Alvin E. Oliver, executive vice president of the Grain & Feed Dealers National Assn., explained that the dinner meeting was held so state secretaries could get an on-the-scene chance to meet informally with their representatives and senators.

Top, left to right: Lloyd A. Nelson, Minnesota Farmers Elevator Assn.; Rep. Albert H. Quie (Minn.); Rep. H. Carl Andersen (Minn.); William D. Flemming, Northwest Retail Feed Assn., Inc. Bottom, left to right: Sen. Karl E. Mundt (S.D.); Sam Sabin, Washington, D.C.; Rep. E. J. Berry (S.D.); Rep. W. R. Poage (Texas); Madison Clement, Grain & Feed Dealers National Assn., Waco, Texas; Ben Ferguson, Texas Grain & Feed Dealers Assn.; Rep. O. C. Fisher (Texas); R. C. Woodworth, Grain & Feed Dealers National Assn., Minneapolis; Clif Anderson, Farmers Elevator Assn. of South Dakota, and Chairman of the Secretaries' Circle; Sen. Francis Case (S.D.).

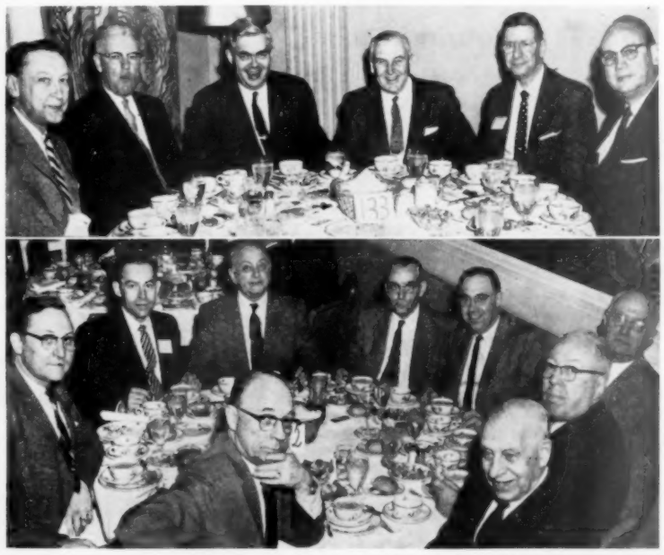


Top, left to right: Rep. Leroy Anderson (Mont.); Pete Stallcop, Northwest Country Elevator Assn.; Rep. Harold G. Cooley (N.C.); O. W. Falson, North Carolina Grain & Feed Dealers Assn.; Rep. Clif Clevenger (Ohio); Rep. Jackson E. Betts (Ohio); G. E. O'Brien, Ohio Grain & Feed Dealers Assn.; Rep. W. M. McCulloch (Ohio); Nevels Pearson, Michigan Feed & Grain Assn. Bottom, left to right: W. E. Glennon, American Feed Manufacturers Assn., Chicago; Marvin I. McLain, assistant secretary, USDA; Alvin E. Oliver, executive vice president, Grain & Feed Dealers National Assn., Washington, D.C.; Rep. Paul B. Dague (Pa.); Richard I. Ammon, Pennsylvania Millers & Feed Dealers Assn.; William F. Brooks, president, National Grain Trade Council, Washington, D.C.; James Browning, CSS, USDA; Clarence Palmby, deputy administrator, CCC, USDA; Walter C. Berger, administrator, CCC, USDA.

Top, left to right: Herbert Kerstein, secretary for Sen. Alexander Wiley (Wis.); Eldon H. Roesler, Central Retail Feed Assn., Inc.; Dr. W. C. Hopper, Canadian Embassy; Murray McPhail, Ontario Retail Feed Dealers Assn.; Rep. Lester Johnson (Wis.); E. H. Sather, New Richmond, Wis. Bottom, left to right: Ray J. Ratliff, assistant to Rep. George H. Christopher (Mo.); Sheldon Chandler, Jr., Eastern Shore Grain & Feed Dealers Assn.; R. F. Cunningham, New York; Rep. E. C. Gathings (Ark.); Paul Hughes, Midsouth Soybean & Grain Shippers Assn.; Rep. Paul Jones (Mo.); Stanley R. Fike, administrative assistant to Sen. Symington (Mo.); Rep. Thomas B. Curtis (Mo.); E. G. Cherbonnier, St. Louis; Rep. Christopher.



Top, left to right: Rep. Les Arends (Ill.); Ed Herron, Illinois Grain Dealers Assn.; Rep. Sid Simpson (Ill.); B. W. Whitlock, grain division, Agricultural Marketing Service, U.S. Department of Agriculture; Rep. Walter Horan (Wash.); Merrill D. Sather, Pacific Northwest Grain Dealers Assn.; Dr. Lawrence Carpenter, Distillers Feed Research Council. Bottom, left to right: Rep. J. Floyd Breeding (Kansas); S. Dean Evans, Sr., Salina, Kansas; Rep. Wint Smith (Kansas); Rep. Edward H. Rees (Kansas); Sen. Andrew F. Schoeppel (Kansas); Rep. William H. Avery (Kansas); Orris E. Case, Kansas Grain & Feed Dealers Assn.; Howard Elm, Nebraska Grain & Feed Dealers Assn.



Top, left to right: Ralph E. Nowland, deputy administrator, Farm Credit Administration; L. S. White, Arkansas Drier & Warehousemen Assn.; Rep. Charles B. Brownson (Ind.); Rep. Ralph Harvey (Ind.); Fred E. Sale, Indiana Grain & Feed Dealers Assn.; Rep. E. Ross Adair (Ind.). Bottom, left to right: Sen. Bourke B. Hickenlooper (Iowa); Rep. Fred Schwengel (Iowa); Dr. Richard Phillips, Iowa State College; Rep. Henry O. Talle (Iowa); Rep. H. R. Gross (Iowa); Robert Skinner, Western Grain & Feed Assn.; Rep. Charles B. Hoeven (Iowa); Rep. Paul Cunningham (Iowa); Rep. Carl M. LeCompte (Iowa).

In Feed Fortification Programs around the world

Dawe's dependability makes the difference

Around the world, on six continents, feed men recognize the dependability of Dawe's fortification products and services. They'll tell you Dawe's superior quality and fast, personalized service do make a difference.

Dawe's, a career company with over thirty years' specialization in vitamins and other feed additives, has a product and service program to meet your every requirement. Qualified specialists are available to assist you in developing a program to meet your specific needs.

Call Dawe's for individual vitamins, premixes custom-blended and packaged to your specifications, or comprehensive multiple-vitamin fortifiers of Dawe's own formulation. You'll see the difference Dawe's dependability makes in feed fortification programs around the world.

PLANTS

Chicago, Illinois • Peoria, Illinois • Fort Worth, Texas
Auburn, Washington • Newaygo, Michigan • Trenton, New Jersey

WAREHOUSES

Atlanta, Georgia • Buffalo, New York • Columbus, Ohio
Denver, Colorado • Kansas City, Missouri • Madison, Wisconsin
Memphis, Tennessee • Minneapolis, Minnesota • Roanoke, Virginia
Los Angeles, California • Stockton, California

FOREIGN OFFICES

Belgium—13 Courte rue des Claires, Antwerp
Italy—Corso Magenta 81/83, Milan
Mexico—Sierra Leona 755, Mexico 10, D. F.
Venezuela—Apartado 3050, Caracas

DAWE'S LABORATORIES, INC.
4800 South Richmond Street
Chicago 32, Illinois

Dawe's

World's Oldest and Largest Specialists in Vitamin Products for Feeds

UP OR DOWN?

By Leonard W. Schruben
Agricultural Economist, Kansas State College

Spring Planting Intentions for 1958

The Crop Reporting Board recently indicated the number of acres farmers intended to plant to feed grain and oilseed crops. These intentions reports are of interest to feed manufacturers because they have a direct bearing on the prospective supply of those crops.

This report is written to acquaint you with the nature of these reports and to give you a good idea as to the extent these plans were changed later in the season.

You can compare intentions with plantings by looking at Exhibit 1. In this table we have gone through the records for several years to give you an idea of the changes in plantings later in the season. This comparison will help you make more intelligent use of the intentions report released March 18. You need to have a good idea how often and how much plans were changed later in the season. Not that history will be repeated, but it will help you gage the confidence you can place on the estimates.

You should remember we are dealing with estimates, and the word "estimate" means just that! Although the past record has been a good one, considering everything, you will notice in some years farmers made substantial changes in plans.

EXHIBIT 1. Estimates of planted acreages, U.S., 1950-58.

(000's omitted)

Crop Year	Planting intentions March report	Estimated acreage planted December report
Corn—		
1950	82,765	84,370
1951	85,694	83,866
1952	83,928	82,658
1953	81,764	81,403
1954	81,037	81,893
1955	82,033	81,577
1956	78,686	78,557
1957	74,410	73,985
1958	75,143	....
Oats—		
1950	47,964	46,642
1951	44,191	41,594
1952	42,818	42,975
1953	43,777	44,015
1954	47,256	47,284
1955	47,664	48,021
1956	46,063	44,648
1957	43,514	43,020
1958	39,658	....
Soybeans—		
1950	13,500	14,704
1951	13,772	14,838
1952	15,457	15,643
1953	15,862	16,085
1954	18,075	18,753
1955	19,981	19,669
1956	21,760	21,970
1957	22,745	21,804
1958	23,985	....
Barley—		
1950	13,879	13,235
1951	11,413	10,840
1952	9,752	9,385
1953	9,357	9,597
1954	14,095	14,517
1955	15,776	16,102
1956	14,773	14,712
1957	16,008	16,537
1958	16,034	....
Sorghum—		
1950	14,568	16,587
1951	12,540	15,113
1952	13,442	12,455
1953	14,666	14,604
1954	18,664	19,882
1955	21,322	24,113
1956	24,198	21,503
1957	26,490	26,958
1958	23,519	....
Flaxseed—		
1950	4,027	4,064
1951	3,927	4,114
1952	3,935	3,450
1953	4,142	4,560
1954	5,383	5,959
1955	5,743	5,192
1956	5,465	5,862
1957	5,839	5,562
1958	4,607	....

FEED RETAILER QUITS

SAN FRANCISCO—The Chappell Implement Co., Fresno, a retailer of farm implements and livestock feed, is going out of business, it is reported.

Book on Materials Handling Published

PHILADELPHIA—Materials Handling Applications, by D. Oliphant Hayes, a companion volume to the author's book Materials Handling Equipment, has been published by the book division of the Chilton Co., Philadelphia.

It offers advice and information on improving a materials handling program at commercial and manufacturing levels, and it is simple and non-technical in its approach.

Emphasizing that effective and economical adaptation of the materials handling job to the work area available is crucial to the solution of all types of materials handling problems, the author illustrates how to meet situations of all kinds in factories, railroads, trucks and loading platforms. Various types of containers and the peculiar qualities of different materials are taken up individually.

($12.50, 381 pages, 1,100 illustrations. Chilton Co., Book Division, 56th and Chestnut Street, Philadelphia 39.)

Injection Advocated as Pig Anemia Treatment

MADISON, WIS.—A single injection of iron-dextran protects baby pigs against anemia until they are eating foods which supply protective materials, according to tests at the University of Wisconsin.

Dr. H. L. Self, Dr. R. H. Grummer, Dr. Tadeusz Kowalczyk and Marvin Rydberg compared the iron-dextran injection with a pill containing iron and with an iron liquid treatment given through the mouth.

The injection gave the quickest response and lasted longer. Pigs treated with the liquid did not show beneficial effects. Also, the single injection method involves less handling of pigs than other anemia treatments.

BUILDS DRYER, ELEVATOR

BAY CITY, TEXAS — A $125,000 grain sorghum dryer and storage elevator will be constructed at Blessing, Texas, by Bay Grain, Inc., a recently organized firm. The elevator and dryer will have a capacity of 120 rail cars. It will be equipped with a heat dryer and a gaseous type fumigation system and rail car moving equipment.

"BROWER MIXER is a profit-building investment"

. . . says Ben Parks
Ideal Elevator Co.,
Boulder, Colorado

"We have had over 3 years of trouble-free service from our Brower Mixer; it has never required any replacement parts. We not only mix our own brand of feeds, but we also do a good custom mixing business. We have found the Brower Mixer to be a profit-building investment; without it we surely could not handle all the mixing our business requires."

BROWER Whirlwind MIXER

Dependability, fast mixing action, and low cost operation make Brower the WORLD'S LARGEST SELLING MIXER! Brower action WHIRLS the ingredients instead of just stirring or tumbling them . . . produces the most thorough mix you can get. Every sack has the same even mixture.

FAST and ECONOMICAL—a perfect blend in about 10 minutes at a power cost of only 3¢ to 5¢ a ton. Five sizes —700, 1200, 2000, 3000 and 4000 pounds-per-batch mixing capacities. Above-floor and below-floor models. Heavy welded steel construction—built for years of trouble-free service.

Interior readily accessible through large hinged service door and hinged conveyor sleeve.

Notice the mixing paddle at top which WHIRLS the ingredients for the most thorough mix.

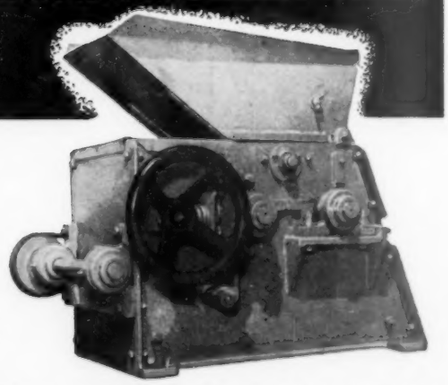
Glass observation window at eye level provides easy inspection of mixed feed at any time.

WRITE for FREE CATALOG

BROWER MFG. CO.
402 N. 3rd, Quincy, Ill.

World's Largest Selling Mixer

W-W GRAIN ROLLER MILL



Will Make You More Money!

Lasts Longer

CRIMPS . . . CRACKS . . . OR CRUMBLES EVERY KERNEL

AVAILABLE ON LIBERAL TIME PAYMENT PLAN

The W-W Roller Mill processes grain **just the way** your customers like it because it **leaves no grain untouched.** Makes feed more digestible so livestock eat it all . . . digest it all . . . gain more. **Advanced Controls**—with simplified adjustment wheel instead of levers (no wrenches required). **Mill-type Rollers**—with standard corrugations that last longer and can be regrooved more times than any other kind. **Quality Built**—on gray cast iron frame for long life. Compare and see!

Mill Contractors and Installers Get Complete Information on the Equipment

Write for complete literature on W-W Roller Mills. Also on the famous W-W Hammermills, Permanent Magnetic Separators.

W-W GRINDER CORP.
2957 No. Market, Dept. 311 Wichita 4, Kansas

HONEGGER FARM SERVICE SCHOOL — Forty-three dealers and sales trainees from nine states attended the recent five-day Honegger Farm Service School. Held periodically by Honeggers' & Co., Inc., Fairbury, Ill., the school features sessions on nutrition, diseases, housing, livestock and poultry management, feed merchandising and direct sales techniques. The "students," all wearing Honegger striped ties, are shown gathered here for the official "class photo."

Dr. John H. Davis Predicts Effects of Vertical Integration

EAST LANSING, MICH.—A national leader in agriculture discussed the effect of vertical integration on marketing agencies and predicted drastic changes in our present market structure.

Dr. John H. Davis, director of the Harvard University graduate school program in agriculture and business, and former assistant secretary of agriculture, spoke to more than 340 at the fourth annual Agriculture Marketing Clinic at Michigan State University.

In discussing vertical integration, Dr. Davis contended "we are going to have vertical integration in the future—at a stepped-up tempo." Farmers have felt growing insecurity at not having various production and distribution processes linked together.

"Vertical integration will ride forward on a series of new innovations. We can look for such developments as liquid self-feeders for cattle, tenderizers for tough beef, an emphasis on lean-type hogs and a new condensed milk."

The speaker also mentioned possible distribution changes of the future. "Warehouses may replace supermarkets, products will become more standardized, food may be bought in larger quantities and there may be a return to food buying on credit," Dr. Davis predicted.

As vertical integration takes place, competition tends to increase, according to Dr. Davis. "The welding together of larger and larger units at the processing and distribution levels makes for more competition," he added.

"The farmer will have to be sufficiently organized, through some associated arrangement, to guard against being the 'weakest link' in the integrated system. He must not become the most vulnerable to economic adversity."

"As technology increases," he pointed out, "the opportunity to go broke increases, just as the opportunity to succeed is greater. Technology makes us give up some of our old freedoms, but also opens up new and exciting ones."

Swine Testing Station Set Up in Kentucky

LEXINGTON, KY.—A testing station to enable purebred swine breeders to develop meat-type hogs has been established at the Coldstream Farm, the University of Kentucky's new experimental establishment at Lexington.

Temporary facilities have been set up to test 20 litter-pairs of pigs consigned by breeders. Prof. C. E. Barnhart, swine researcher, says, "We hope we'll be able to get a larger and permanent testing set-up in the near future."

Funds for the layout ($5,000) were furnished by the Kentucky Department of Economic Development.

NEW EQUIPMENT INSTALLED

MUNCY, PA. — Completion of a custom grinding and mixing installation for Farmers Supply Co., Reidsville, N.C., was announced by Sprout, Waldron & Co., Inc., Muncy. It includes a Sprout-Waldron hammer mill, feed mixer, molasses mixing unit, a Winslow hopper scale, elevator with capacity of 1,470 bu. per hour and a screw conveyor.

Myvamix®
VITAMIN E
FEED SUPPLEMENT
IS DISTRIBUTED BY:

THE AMBURGO COMPANY, INCORPORATED
1315-17 Walnut Street
Philadelphia 7, Pennsylvania

CARROLL SWANSON SALES COMPANY
618 Des Moines Building
Des Moines 9, Iowa

W. M. GILLIES, INC.
244 California Street
San Francisco 11, California

GOOD-LIFE CHEMICALS, INC.
310 South First Street
Effingham, Illinois

HOLT PRODUCTS COMPANY
Box 840
Milwaukee 1, Wisconsin

KINDSTROM-SCHMOLL COMPANY
418 Flour Exchange
Minneapolis 15, Minnesota

M. A. McCLELLAND COMPANY
Dwight Building
Kansas City 5, Missouri

PLESS AND SHEAHAN
P.O. Box 2654
Memphis 2, Tennessee

VAN WATERS AND ROGERS, INCORPORATED
10216 Denton Road
Dallas 9, Texas

THE JOHN F. YOUNG COMPANY
3270 Southside Avenue
Cincinnati 4, Ohio

IN CANADA
CHARLES ALBERT SMITH, LIMITED
356 Eastern Avenue
Toronto, Ontario

8307 Royden Road
Montreal, P. Q.

And, of course, you can get it directly from *Distillation Products Industries*, Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis.

producers of
Myvamix
Vitamin E

Distillation Products Industries
is a division of
Eastman Kodak Company

Mister....

IT'S NOT RIGHT!

. . . To use just any brand of feed fortification with the idea that "they are all just about the same"!

You owe it to yourself to find out right away what Pratts Hi-Trates can do for your feeds —and your business!

Pratt is free to pick and choose the best ingredients available. That's the reason Hi-Trates supply ALL the vitamins (in stabilized form), anti-biotics and trace minerals you need to fortify your feeds *right!* There's a big savings and profit story, too. Want facts? Write Pratt today!

MAKE Pratts PROVE IT!

Pratt Laboratories, Inc.
501 Main St., Junction City, Ky.

IT'S BEEN PROVEN!

YOU CAN SAVE THOUSANDS OF DOLLARS WORTH OF GRAIN AND STORAGE COSTS EACH YEAR WITH HOT SPOT DETECTOR SYSTEMS

Is moisture migration threatening — is there any pregermination — are you running your aeration system too long or not long enough — are insects building up — is there mold action? These are the questions you must have answered before you have a safe flat storage operation.

And, Hot Spot Detector will give you those answers. Fast, accurate, dependable answers that will guide you in your search for higher profit storage.

Thousands of users throughout the world have proven the effectiveness of the Hot Spot system. Easy installation combined with profit making features that pay for the system in the first year makes Hot Spot a NECESSITY in your storage operation.

Al Stanton of Stanton & Son, Watson, Mo., says: "I installed a Hot Spot Detector system in one of my flat buildings last June — and by October this system reduced my fumigant costs by half."

HOT SPOT
DETECTOR-ZELENY
WORLD'S LEADING MANUFACTURER OF TEMPERATURE MEASURING SYSTEMS
214 THIRD STREET • DES MOINES, IOWA

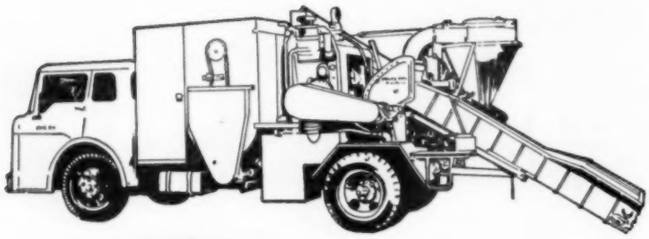
THIS COUPON IS YOUR TICKET TO SAFE STORAGE

To receive full information about the Hot Spot Detector System, just clip this coupon, attach to your letterhead, sign and mail to us. No obligation, of course.

The Melos Mobile Mill

is designed

TO MAKE YOU PROFITS



IT'S NEW IN EVERY WAY!

- **CARRIES TWO TONS OF SUPPLEMENT!! Eliminates the need for an escort truck. This is efficiency.**
- **The BIG 24" hammermill and the giant capacity mixer make it possible to do bigger jobs faster.**
- **The GM Diesel powered mill does a thorough job, faster than any other mobile mill and Diesel power is the most economical.**
- **The large capacity and speed of the Melos means you sell MORE feed. You sell MORE molasses, too.**
- **More jobs mean MORE income from grinding and mixing charges. Your customers will like the fast, efficient service.**
- **MELOS will HELP YOU FINANCE!**
- **MELOS will help you start a planned route system, the SURE way to make a profit from the start.**

How good is the Melos Machine?

Here are some remarks by Dewey Casto, feed dealer at Jewell, Iowa. He owns a Melos and is making big profits.

- **"Since I have started operating my Melos Mobile Mill my sales of supplements have increased 20%," writes Mr. Casto. The reason is simple as he explains: "It grinds faster and is the only mixer that truly handles two tons or more and thoroughly mixes the molasses."**
- **"I believe that with my Melos I can grind and mix more in less time than a competitor with another make of mill."**

- Mr. Casto compares—"The Melos Mill is constructed a lot heavier and is more sturdily built; it costs less in repairs than the mill I had previously. In my opinion and by my previous experience it costs less to operate and will outwear other makes of mills."

Keep your mill on the road, not in repair shops. Get a mill that is DESIGNED AND BUILT to MAKE PROFITS.

The success story of Mr. Dewey Casto can be YOUR SUCCESS STORY. Write for complete details TODAY!

YOU'LL MAKE MORE *Profit* WITH A

MELOS Mobile Mill

The Melos Mobile Mill is DESIGNED to make you profits.

MELOS can help you finance!

33 Years in the portable mill business

Write for Detailed Information

MELOS MANUFACTURING COMPANY
2010 Hubbell Blvd., Des Moines, Iowa

Feed Service Bulletin Board

Helpful Notes on Feeding and Management for Feed Men and Their Customers

Buy Best Poultry Feeds

It takes skill to put together today's quality poultry feeds, Paul E. Sanford, Kansas State College poultry specialist, advises producers. Formulation of the layer-breeder feeds has become much more complicated, he says, and requires a nutritionist with training in the field of poultry nutrition as well as an understanding of management, disease control, sanitation and economics.

Today's poultry rations may include a total of 25 ingredients, with as many as 15 chemical additives. Poultrymen should buy the best feed available, because it will return a greater profit, Mr. Sanford urges.

◆

Dairy Breeding Efficiency

Breeding efficiency of dairy cattle has now climbed to 66%, but there's still considerable room for improvement. In New York state alone, for example, it is estimated that 50,000 more cows would conceive with a single service if just two practices were more closely followed on the farm, according to a Cornell University specialist, R. H. Foote.

These two practices are: Careful, daily checking of the cows in the herd for estrus, and the keeping of simple calving and breeding records to avoid breeding the cow sooner than 60 days after calving. The 66% figure could easily be pushed up to 70%, Mr. Foote says. While approximately 66% of the cows now conceive after one service, about 90% conceive after one to three services.

◆

Causes of Thin Shells

Laying hens inherit shell strength and texture, but it pays a poultryman to know that a half dozen other factors also affect shell condition, according to a Rutgers University poultry specialist, John C. Taylor.

To begin with, respiratory diseases such as Newcastle and bronchitis play havoc with shell quality. Sulfa drugs used in the treatment of poultry disease will cause the hens to lay eggs with thin shells. Then too, amounts of calcium and phosphorus in the layers' feed can cause problems. A calcium-phosphorus ratio of 4 to 1 is recommended by the Rutgers specialist. Too much phosphorus can affect the hen's use of calcium.

On the other hand, too little manganese in the ration is known to affect egg shell quality. Temperature is one of the most common factors affecting this shell condition. As temperatures where the birds live increase above 70 degrees, shells become thinner and weaker. Any of these causes are likely to show up as breakage losses during gathering, packing and shipment.

◆

Coccidiosis in Lambs

Crowding too many lambs and ewes into the same lot this spring may cause heavy losses from coccidiosis, cautions Dr. N. D. Levine, animal parasite specialist at the University of Illinois. He says lambs under three months of age are most frequently and seriously affected. They get weak, lose weight, have diarrhea and may die if they get a heavy dose of the parasites that cause the disease.

Young lambs pick up the parasites from pasture, feed and water that have been contaminated by infected older sheep. If it's a light infection and the lambs are healthy up to this point, no great damage is done. But if too many lambs and ewes are crowded together, exposure is heavier and the lambs may become heavily infected.

The veterinarian gives two simple steps to prevent trouble from coccidiosis: Don't crowd the ewes or lambs, and use elevated feed and water containers. A veterinarian's treatment is most effective if he is called at the first signs of this disease.

◆

Limiting Sows' Gains

Ground corn cobs, controlled hand feeding or ground alfalfa hay can help producers hold back excessive weight gains on bred sows and gilts, Dr. L. E. Hanson, University of Minnesota swine researcher and animal husbandry department head, reports.

If gilts are placed on a restricted ration at 125-130 lb., then 20 to 30% of ground corn cobs in a mixed ration containing 15% alfalfa will control weight gains satisfactorily, he said. This applies to self-feeding up to breeding time.

Weight gains of gilts that weigh 275 lb. at breeding can be controlled by hand feeding 4.5 to 5 lb. of a complete ration daily, or by self-feeding a mixture which contains 45% or more of ground alfalfa hay, he said.

DON STRUSAKER DIES

NEY, OHIO — Don W. Strusaker, 65, president of the D&E Feed Co., Ney, died recently in the Orange Memorial Hospital, Orlando, Fla., following a heart attack at his winter home in Orlando. Surviving are his widow, two daughters, six grandchildren and three sisters.

Blatchford's ESTABLISHED IN 1900

CALF-PAB WITH DYNAFAC ESTABLISHED IN 1900

QUALITY

CUSTOMERS TRUST...AT A

PRICE TO GIVE RAPID TURNOVER

Get BOTH with Blatchford's CALF-PAB!

You know Calf-Pab is good. Generation after generation of calf raisers have trusted Blatchford's quality. Ask your distributor.

FREE! 32 Page Calf Manual and Calf-Pab Sales Display.
WRITE TODAY! Dept. 248

Blatchford's ESTABLISHED IN 1900

Main Plant & Offices WAUKEGAN, ILL. | Midwest Division Des Moines, Ia. | West Coast Division Nampa, Idaho

New nf-180 treatment in feeds

Proves best way yet to control hog scours

...Nf-180 knocks out bloody dysentery and necrotic enteritis

Nf-180 is the first scours-treating feed medication that is really effective. Hog specialists and farmers in six corn belt states have tested it and they all report success. They found too that nf-180 straightened out runts, increased feed consumption.

Take the case of an Ohio hog raiser, for example. He tried every treatment he knew, including the arsenicals to rid his 300 hogs of bloody scours. Nothing helped . . . not even a 6 week treatment of using a 400-gram level of an antibiotic. A swine disease specialist recommended nf-180 (at 300 grams furazolidone per ton of feed) for two weeks. Seven days later he reported, "This is the first time in months that there hasn't been a trace of scouring in my herd."

In another case, 30 five-week-old pigs failed to respond to high-level antibiotic treatment for scouring. The feeder gave them nf-180 (supplying 300 grams furazolidone per ton) for 14 days. The scouring was completely controlled.

In case after case such as these, nf-180 successfully proved itself against the two most severe forms of swine enteritis, necrotic enteritis due to *Salmonella choleraesuis* and vibrionic (bloody) dysentery.

Scientists credit nf-180's success to its unique germ-killing ability. Nf-180 is one of the new nitrofurans, a group of antimicrobials whose success is based on the simple fact that disease germs, too, need food to live. By interfering with germs' nutritional balance, nf-180 starves them . . . kills them. That's why germs don't become immune to nf-180 or thrive on it as so often happens with former "miracle drugs." As a result nf-180 can do a superior disease control job where many other drugs fail.

New nf-180 treatment gives you a big sales edge in the hog feed market

Save a farmer's hogs from the devastating losses incurred by Necro and bloody dysentery . . . and you save a customer or gain a new one for the rest of your hog feed business.

Now you can be ready with the truly effective nf-180 treatment for scours. Even where other treatments have failed, nf-180 has come in and done the job . . . stopped scouring, put hogs back on feed, made them "good-doers" again so they go on to market.

It's a big opportunity for ready-mixed feeds and custom-mixing service. Nf-180 is available in the form of a new product . . . especially designed for local mixing. It is "Nf-180 Custom-Mix TEN" with 10 grams active drug *furazolidone* per pound. Follow mixing directions on the label.

The treatment: Feed a complete ration containing nf-180 at the rate of 300 grams furazolidone per ton (15 grams per 100 lbs. feed) for 10 to 14 days.

Get ready now — with the facts, the product and the service. You'll be helping your customers to better hog profits and yourself to better feed sales. Your Hess & Clark representative is ready with complete details. Or, write or call Feed Products Division for the "Nf-180 Swine Scours Service Kit."

NT-8-3

Convenient Warehouses at: Kansas City, Mo. • Chicago, Ill. • St. Paul, Minn. • Ashland, Ohio • Memphis, Tenn. • Portland, Ore. • San Francisco, Calif. Glendale, Ariz. • Dallas, Texas • Buffalo, N. Y. • Lancaster, Pa. • Seaford, Del. • Charlotte, N. C. • Atlanta, Ga.

FOR
BEST SERVICE
ON
VITAMINS A & D
ALL TYPES — ALL POTENCIES
PLUS
PREMIXES
Call

RUDY ESCHENHEIMER COMPANY

BOX 147
CHILLICOTHE
MISSOURI
PHONE 1047

Serving the
Feed Trade
For Over
20 Years

Wherever Grain Goes
Weevils Are Sure To Follow

Let them get into that mountain of golden grain, and they'll pick you clean. (You'll never sell what's left at top market prices.)

Weevils, moths and other grain pests can't stand Stauffer's "80-20" Grain Fumigant. A good whiff, and they just curl up and die—eggs, larvae, pupae and adults.

It's not only more effective to use on stored grain, but it's more economical, too.

Another thing you'll like about "80-20" Grain Fumigant is that F. I. A. on the label. (It means "Fire Inhibitor Added". Just another way of saying that Stauffer's "80-20" has Underwriters Laboratories rating seal.)

Remember, Stauffer's "80-20" Grain Fumigant not only protects stored wheat and other small grains, including oats, rye, barley, rice and milo—but it controls insects that attack corn and seed stocks as well. It's also available in 4 different formulas, according to your special needs.

Stauffer's "80-20" Fumigant will protect your profits every storage season!

Stauffer CHEMICAL SINCE 1880

"80-20" Grain Fumigants

New York • San Francisco • Houston • Omaha • Los Angeles • Tampa
North Portland • Weslaco • Lubbock • Harvey • North Little Rock

What's New in Feeding
Putting Research to Work

A Disorder of Chickens Probably Due to a Toxic Feed—Preliminary Report

● S. C. Schmittle, H. M. Edwards and D. Morris, Athens and Gainesville, Ga.; Journal of American Veterinary Medical Assn., Vol. 132, No. 5, pages 216-219 (March, 1958).

(A story with later news on the cause of this disease appeared in the April 5 issue of Feedstuffs.)

A study was made to attempt to "pin-point" the toxic factor involved in a recently reported disorder of chickens. Six hundred White Rock-cross chicks, one day old, were obtained from a commercial hatchery and allotted into 20 groups. Ten rations were prepared, including a basal ration (ANRC reference chick diet), two samples of commercial feeds known to have been used in flocks where the birds were affected with the new and mysterious disease entity, and various extracts of these two commercial feeds.

These rations were fed to each of two replicate groups of chicks. Every precaution was taken to prevent the transmission of any infectious agent from one group to another. The different rations and water were provided ad libitum and proper management practices were followed.

Beginning with the 13th day of the feeding trial, chicks started dying in the groups being fed one of the commercial feeds. On the 19th day, there was an onset of death among the chicks fed on the other commercial feed. All of the chicks in the group fed on the first commercial feed were dead in 32 days. Chicks fed rations containing extracts of these two feeds also died.

The typical clinical signs and lesions found in the afflicted birds are described by these workers.

The results of this and other studies indicated that the disease condition is noninfectious and appears to be due to a toxic substance in the feed. The toxic principal is apparently stable to storage for at least eight months and to heating (autoclaving) at 121° C. for 20 minutes. The results of this test would indicate that it is not soluble in water.

These researchers point out that, since losses occurred when a certain fat was added to the basal control ration, the toxic material is apparently present in that particular sample of fat. However, they do not feel that fat per se is involved, in view of the tremendous amount of evidence showing that fat can be added to poultry rations in fairly large amounts without producing adverse effects. It is concluded that this particular sample of fat contained some toxic principal as a contaminant.

COMMENTS:

As early as March, 1957, a mysterious disease condition was reported in broiler flocks in the Georgia area. The disease was characterized by "labored breathing, droopiness, ruffled feathers and high mortality." There were many reports of chicks "smothering to death." The presence of an especially virulent infectious agent was suspected in the afflicted flocks. However, extensive attempts to culture such an agent by routine procedures failed to demonstrate the presence of a primary infectious agent.

Later in the year (October), the disease appeared to be rapidly increasing in incidence and spreading to other areas. The condition first appeared to be restricted to Georgia, Alabama, North Carolina and Mississippi. Eventually, however, it was reported in Maryland, Delaware, Indiana, Ohio and Arkansas.

Mortality as high as 90% was reported in a great many flocks. The average death loss appeared to range from 50 to 75%. In some instances, the feed companies and the growers killed entire batches of birds as soon as the symptoms were apparent, rather than run additional risk and incur further losses from feed and management costs. It was reported that 200,000 chicks were killed for this reason in the Gainesville (Georgia) area alone.

Nitrofurans, antibiotics, sulfonamides and other accepted poultry medications have had no effect on altering the course of the disease.

Additional pathological lesions were reported. In some cases there was an accumulation of fluid in the abdomen and excessive amounts of fluid were present in the heart sac. The heart sac was usually distended and there was an accumulation of fluids under the skin. The liver was found to be enlarged and characterized by a rough, cobblestone appearance on the surface. The kidneys were pale and swollen. In all instances the mortality rate was extremely high.

Case Histories

A review of the case histories showed that the chicks exhibited the typical symptoms at an early age and were definitely afflicted by the time they reached three weeks of age. Death losses were definitely on the increase by the time the birds were three weeks old.

The early instances of this condition were not found to be related geographically. Healthy flocks and affected flocks of the same age were reported in all areas. One common factor was found in the early instances to be that feed manufactured in certain feed mills, representing different companies, was being furnished

FISH SOLUBLES
Dried, 100% Pure,
Made of
South African
PILCHARDS
•
PROMPT & DEFERRED SHIPMENTS
Imported Full Meal
(FISH MEAL WITH SOLUBLES)
Sardine Meal
Anchovy Meal
Herring Meal
Fish Scraps
•
UNEXTRACTED ANIMAL
LIVER & GLANDULAR MEAL
•
COD LIVER MEAL
•
STEAMED BONE MEAL
•
DICALCIUM PHOSPHATE
•
Vitamin "A" Fish Liver Oils
•
ALBUMINA
SUPPLY CO., Inc.
82 Beaver Street
NEW YORK 5, N.Y.
Phone HAnover 2-4174

Dr. Donald L. Staheli

SCIENTIST—Dr. Donald L. Staheli has recently joined the research laboratories of Swift & Co., Chicago. He was previously a member of the U.S. Air Force and was stationed at Wright Air Development Center, Dayton, Ohio. A native of Utah, Dr. Staheli obtained his B.S. in animal husbandry in 1953 from Utah State College. His graduate work was done at the University of Illinois. His M.S. degree was awarded in 1954 and his Ph.D. in animal science in 1956.

to all of the afflicted flocks. Exhaustive chemical tests on the feeds in question produced no conclusive evidence. However, "a number of chemicals including nitrates, nitrites, phenols, lead, arsenic (in toxic quantities), sodium chloride, cresols and Warfarin" were eliminated as causative factors as a result of these extensive analyses.

In one instance a poultryman set up a feeding trial with two pens of birds. There were 1,200 birds in each pen and only a wire partition separated the pens. One group was fed a feed suspected of causing the condition and the birds in the other pen were fed another commercial feed. By the time they were 9½ weeks old, 86% of the birds on the suspected feed had died. Only 15 birds died in the same length of time in the lot fed on the other feed.

Many agencies, related both directly and indirectly to the feed manufacturing industry, initiated "crash-type" research programs in an attempt to stop the devastating progress of the disease. State colleges as well as private institutions and organizations became involved. The American Feed Manufacturers Assn. has acted as a clearing house for the collection and dissemination of data and information pertaining to the disorder. Essentially, the AFMA served to "catalyze" the united effort being made to resolve this problem.

No New Cases

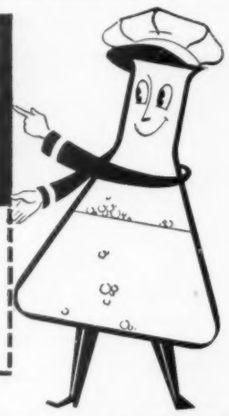
Recent reports indicate that no new cases of the condition have been reported for some time. There is much comment to the effect that the fast action of the feed companies and other agencies involved has stopped the disease. However, a "cold-blooded" interpretation of these facts would indicate that the causative agent has not been made available to the chickens during the recent weeks. There are indications now that the condition experienced in flocks in Arkansas, Oklahoma and Texas, while apparently closely related to the disorder found in other areas, "does not appear to be caused precisely by the same factor, at least as far as source is concerned."

The present status of this mysterious malady seems to be about as outlined in the following sentences. It is estimated that as many as 10 million broilers may have been killed or destroyed as a result of this condition. There seems to be no evidence to the effect that the actual processing (milling and manufacturing) of feed is involved. The amount of fat in the ration is not responsible for producing the condition. There is no evidence that the disorder is infectious or contagious. It has not been found to be harmful to humans either by contact during the growing or processing or by eating the flesh of chickens ex-

SOLULAC

70% corn distillers solubles
30% corn distillers grains

PRODUCED AND AVAILABLE EVERY WEEK OF THE YEAR



GRAIN PROCESSING CORPORATION
MUSCATINE, IOWA Telephone AMherst 3-1321 TWX495

© 1957

Primary Fermentation Products
Riboflavin — Vitamin B-12 — GP-101, source of whey and other unidentified growth factors

Three BS&B Bolted Steel Grain Tanks with total capacity of 510,000 bushels. Each tank is 55' in diameter by 88' 10" high. Built for Spencer Kellogg & Sons, Inc., Bellevue, Ohio.

...Less Than 60 Days, Foundation to Finish!

In less than sixty days America's largest Bolted Steel Grain Tanks were completed for Spencer Kellogg & Sons of Bellevue, Ohio by BS&B. Actual tank erection began on September 10, with a deadline of October 15 for two of the three huge tanks. Soybeans were on the way.

All Three Tanks Were Finished October 18! This construction time included all foundation work.

No other form of construction, especially slip-form or monolithic concrete, could match this record erection time for 510,000 bushel storage.

BS&B Bolted Steel Grain Tanks always give fully sealed protection to stored products. All seams and roof plates are rubber gasketed. Even alfalfa pellets under inert gas pressure can be stored with complete confidence.

Consider too, the nearly maintenance-free service provided by BS&B Bolted Steel Grain Tanks. No cracks to caulk; no rotting or warping; no weather scaling due to freeze and thaw; smooth interior gives no haven to rodents or vermin.

We would like to show you how BS&B Bolted Steel Grain Tanks are meeting the challenge of previously hard-to-solve storage problems. Write today to...

BLACK, SIVALLS & BRYSON, INC.
Agricultural Division, Dept. 10-AK4
7500 East 12th Street Kansas City 26, Missouri

Member, American Dehydrators Association • Associate Member, Grain And Feed Dealers National Association

Herman Nagel's
Trace Mineral
CONCENTRATE

Where only trace minerals are to be added, Herman Nagel's Trace Mineral Concentrate supplies all eight, in correct balance.

THE HERMAN NAGEL CO.
53 W. Jackson Blvd., Chicago 4, Ill.

WHY GRAIN, FEED and SEED MEN LIKE

SEEDBURO Portable HYTROL Folding Conveyors

These versatile conveyors are so completely flexible in use that every stacking or loading job can be done with a maximum of worker satisfaction and a minimum of time and labor.

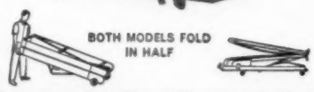
Check these features:

Model "R" Hytrol
- Lightweight, sturdily constructed
- Ruff-Top belt for longer life
- Loads at floor level
- Reversible at flip of switch
- Sizes—10 to 21 ft.

Model "B" Hytrol
- Handles 150 lb. bags, boxes, cartons
- Elevates hydraulically to 45 degrees
- Ruff-Top belt, with or without cleats
- Reversible at flip of switch
- Sizes—10 to 22 ft.

MODEL "R" HYTROL
A lightweight aluminum folding conveyor for complete portability.

MODEL "B" HYTROL
A heavy-duty portable, folding conveyor, built for long life.



BOTH MODELS FOLD IN HALF

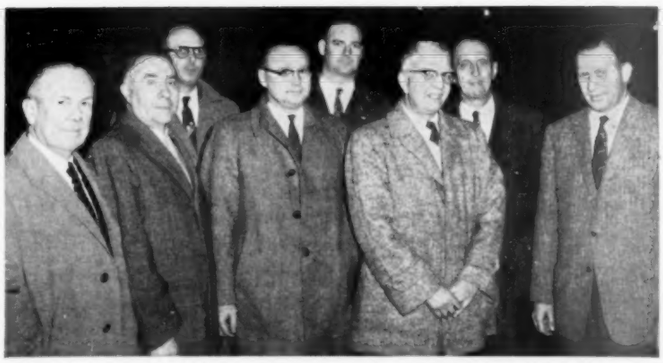
"See your Seedburo Representative"

OR CALL COLLECT
ANdover 3-2128

SEEDBURO
(SEED TRADE REPORTING BUREAU)
EQUIPMENT COMPANY
Dept. FS-4, 618 W. Jackson Blvd., Chicago 3, Ill.

? ? ?
PHOSPHATES
? ? ?
LOW COST?
QUALITY?
DELIVERY?
IS THE SOLUTION
COLUMBIA SOFT PHOSPHATE?
It is the lowest cost phosphorus source acceptable for feeds . . . averages well over 9% Phosphorus . . . excellent service is offered throughout the year.
Write for information and prices.

COLUMBIA PHOSPHATE CO.
1007 WASHINGTON AVENUE
ST. LOUIS 1, MO.



RECORD ATTENDANCE — Attendance at the Rockingham County mid-winter poultry meeting at Harrisonburg, Va., was about five times greater than any previous year, according to James C. Kelly, Heatwole Hatchery, Harrisonburg, chairman of the Rockingham County poultry committee. He commended feed dealers and hatcherymen in the area who brought their customers as guests. More than 1,700 Shenandoah Valley poultrymen attended in spite of a severe snow storm. Dr. Arthur Ringrose, extension poultry specialist at the Virginia Polytechnic Institute, emphasized the meeting theme, "Increasing Efficiency Through Larger Units," by pointing out that a nominal 10-point conversion reduction can mean a savings of 1½ tons of feed, or $143 per 10,000 birds. Other speakers were (left to right, front row): Harvey Taylor, service manager, Arbor Acres, Glastenbury, Conn.; Dr. James Gwin, poultry market manager, Ralston Purina Co., St. Louis, Mo.; Dr. Cecil Howes, head of the poultry department, VPI; Dr. Ringrose, and W. M. Heatwole, Jr., Heatwole Hatcheries, Harrisonburg. In the back row (left to right) are: Aubrey Meyer, Irving Lee and Edward Bain, area bankers.

posed to the malady. The condition as it manifests itself in the birds can be positively identified only by autopsy.

The causative agent or agents have not been officially identified. There have been no adequate tests to date to detect the presence of the agent thought to be the cause of the trouble. The best evidence at present indicates that the agent causing the disease is associated either directly or indirectly with certain samples of fat. It appears to be present either as a contaminant or as the result of improper processing of the fat. There is no evidence to indicate that the factor is associated in any way with the fats that have been processed in compliance with recommended procedures.

Feed Withdrawn

In the meantime, tremendous quantities of feed have been withdrawn from sale and warehouse and on-the-farm stocks of feed have been destroyed. All of the agencies involved have made a Spartan effort to clear up this problem and to prevent further dissemination of the causative agent or agents.

The Farm Journal (April, 1958) reports that "one major company has stopped using fats completely" in its feed manufacturing operations. "Others have switched to No. 1 tallow and vegetable fats." The AFMA recommends that "feed manufacturers should continue to use extreme caution to make sure that fats used in feeds are from sources where scrupulous attention has been given to quality. Also ascertain, if possible, whether or not proper safeguards have been taken by the supplier to eliminate possible contaminants from unknown sources."

At the present time, the incidence of this mysterious malady appears to have lessened. Much progress has been made in collecting data and information which should result in the ultimate solution of the problem. In the meantime, extensive, as well as intensive, investigation continues at a rapid pace in a concerted attempt to identify the cause of this condition which has wrought so much havoc among broiler growers and feed manufacturers.

Tweet-Bernard Names New General Manager

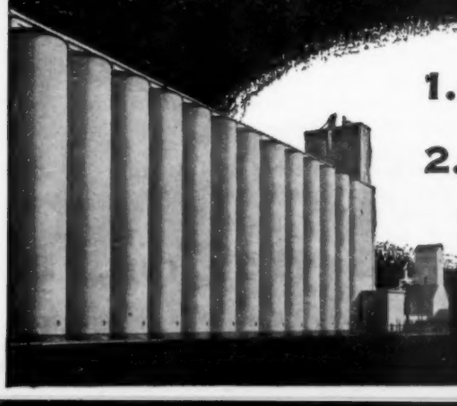
SIOUX CITY, IOWA — Robert W. Vis, former territory representative for Tweet-Bernard Co., Sioux City, has been named general manager of the firm, according to an announcement by company directors.

The firm manufactures a complete line of hog, cattle, poultry and turkey watering and feeding equipment under the label, "O.K. Farm-Tested." The announcement also included the appointment of John A. Zink, Sioux City, to take over Mr. Vis' former territory.

FEED STORE SOLD

STEVINSON, CAL. — Samuel B. and Loisann McCullagh have sold the Stevinson Feed & Supply Co. to Tom R. and Nadine H. McCowen. The firm handles feed, seed, fertilizer and hardware.

OUR "FORMULA"... for serving the formula feed mixers



1. A QUALITY PRODUCT —
FROM THE CREAM OF THE SOYBEAN CROP

2. SERVICE — FROM OUR MILL TO YOURS . . . . **AS SCHEDULED!**
Here's a formula that works . . . . FOR YOU!

D.F.E.
DIRECT FROM EMPORIA

KANSAS PHONE 3000 Soya PRODUCTS CO., INC. EMPORIA, KANSAS

Members Urged To Vote on Merger of Texas Associations

FORT WORTH—Ben E. Schmitt has sent a letter to members of the Texas Feed Manufacturers Assn. urging them to attend the group's April 23-24 convention and vote on the proposed merging of their association with the Texas Grain & Feed Dealers Assn.

The dealer group will hold its convention in Dallas April 25-26, when members will also vote on the plan to merge.

The plan was devised at a recent joint meeting of directors of both groups. It was then unanimously agreed that each board of directors recommend to its respective organizations that the two associations merge.

Mr. Schmitt, secretary-treasurer of the manufacturers' association, also told of program plans for the convention, which will be held in Dallas.

The program will begin at 10 a.m. with a panel discussion on feed financing. Dr. Kenneth McFarland, educational consultant and lecturer for General Motors, will be the noon luncheon speaker. The afternoon program, from 2 to 4:15, will consist of addresses by speakers, to be announced later.

A business session will begin at 4:15 and a social hour at 6.

The president of the manufacturers' association, Wayne D. Nusbaum, has pointed out to members a number of arguments in favor of the merger.

They are: (1) One large organization would be stronger and more effective than two smaller ones, (2) the larger organization would be able to hire a full-time secretary, (3) the two groups have many common interests and overlapping memberships, (4) there would be no competition between the groups for new members, (5) dues would be no more, and in most cases, would be considerably less, (6) many firms will join one group but not two, (7) one convention, rather than two, could be better arranged, and (8) most states have only one organization.

Mr. Nusbaum said his association would agree to such a merger only on the condition (1) that the feed manufacturers be adequately represented on the board of directors of the new association and (2) that there be a committee of the new association in charge of feed manufacturing activities.

He said the second condition is necessary so that the manufacturing group's relationship with the feed control officials, Texas Nutrition Conference and other manufacturers' association activities would be carried on in the future as in the past.

Mr. Nusbaum also urged members to attend the convention and vote on the proposed merger.

South Dakota's Egg Markets Show Shift

BROOKINGS, S.D.—The Pacific Coast and southern regions of the U.S. are becoming important outlets for South Dakota eggs, according to Turner Oyloe, assistant economist at South Dakota State College Agricultural Experiment Station.

"South Dakota's share of the central egg markets in Boston, New York, and Chicago has declined steadily since the early 1930's," says Mr. Oyloe. However, during this time, the New Orleans, San Francisco and Los Angeles markets have increased their purchases of South Dakota eggs, a study at the experiment station shows.

"If the last few years are indications of a trend in marketing eggs, we can assume that these regions will continue to grow in importance as outlets for South Dakota eggs," Mr. Oyloe said.

LASSEN PROCESS
FISH SOLUBLES
WITH FISH GLANDULAR AND LIVER HYDROLYSATE ADDED
+ the Plus Factors
GUARANTEED "ALL YEAR" SUPPLY
Producers and Brokers
R. S. WILSON CO.
1206 MAPLE AVE. • LOS ANGELES 15, CALIF.

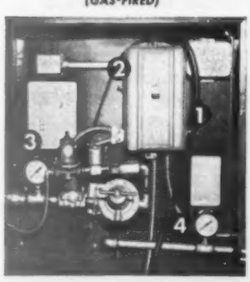
Theo. W. Martin & Son
3166 Maple Drive, Atlanta 5, Ga. CEdar 7-7531
JOBBERS
Specialists in Truck Sales of Soybean Meal, all other Feed Ingredients, and Grain—Also Carlots.
CARLOTS
TRUCK LOTS
WAREHOUSE STOCKS
BROKERS
MANUFACTURERS' AGENTS
"Serving the Feed Industry Since 1905"

Question:
Who sells DOW Methionine for healthier, handsomer animals?
Answer:
BOWMAN FEED PRODUCTS, INC.
Holland, Mich.

New Lennox Batch Bin Gently Loads, Unloads 1500 Bu./Hr.
...has paid for itself in 6 weeks!
Heat Capacity 4,000,000 BTU's plus huge air delivery
Automatic recirculation of grain eliminates wet pockets
LP gas or oil fired, complete safety controls

New "Super 600"—the dryer with the features you want!
Here's a more practical batch bin for elevator and custom drying. It's fast, yet gentle. Features complete recirculation of grain without hand labor. Offers heat capacities from 500,000 to 4,000,000 Btu's. Perforated side walls provide maximum 33% free area for air flow. 9 ft. drag auger loads from any width truck end gate. Bucket elevator telescopes for transporting. Dries 600 bushels in eight separate bins. Amazingly low operating cost!

Handy Control Box
(GAS-FIRED)



All controls are easily reached by lifting the weather-proof control box cover.
1. Fan switch
2. Burner start switch
3. Gauge showing liquid supply line pressure
4. Gauge showing gas pressure to burner

- Available with PTO or electric drive 3-phase current
- Extra-strong 16 gauge, skin stressed wall construction both inside and out
- Powered metering rolls provide uniform and positive control over grain flow to discharge auger
- Built-in air cleaner removes trash lighter than grain
- All units factory wired and fire-tested

For full information on the "Super 600", write—
LENNOX Industries Inc. FARM EQUIPMENT DIVISION
F-4 East Euclid Avenue • Des Moines, Iowa
From the folks who know crop drying best

Feed Milling, Commercial Cattle Feeding Venture Get Texas Firm Started Fast

By Jess F. Blair
Feedstuffs Special Writer

A new feed mill that combines push-button efficiency with a 15-acre feeding laboratory is being tried in west Texas by the Ezell-Key Grain Co., about five miles from Snyder, Texas. The firm conducts feeding tests, then makes the results known to the public.

"It gives us something to back up our sales talk," said Marvin Key, president of the company.

One feeding experiment on 20 steers has been completed and the figures tabulated. On a 120-day test, Mr. Key and his manager, Commodore Ezell, bought 20 steers at an average weight of 358 lb., used maize as the chief ingredient and then sold the animals at 650 lb. In addition to fast gains, the selling price was 1½¢ more than the purchase price.

"Our main purpose was to show farmers how they can market their grain crops through livestock," said Jack Meholin, feed nutritionist. "If a farmer had done this feeding and figured all feed at retail price, he would have received $3.95 cwt. for his milo, as compared to $1.60 cwt. which was the average selling price this last fall."

Colony Poultry House

Another feature being planned is a colony poultry house. It will be of shed-type construction, set on poles 3 ft. above the ground. The building will be 8 ft. wide, 5 ft. from floor to ceiling and will have a 1-ft. drop in the roof from front to back. Length will vary from 20 to 300 ft. or more, but every 10 ft. there will be a partition to make a room 8 by 10 ft. in size. Into this room Mr. Key will place 100 hens.

Ten nests will protrude through the rear wall, while along the front will be feeding and watering troughs. A workman may drive along the front, putting out feed, then come back on the rear side gathering eggs.

"I've seen only one such house," said Mr. Meholin, "but the owner has had it quite some time and says it's superior to the caged house. This can be built for around 75¢ per bird, whereas it costs $3.50 for the caged hen. On this one there will be a screened floor for the droppings to fall through, and the front and back will be made of fence palings. In cooler climates, the owner can use tighter construction."

Feeding Pens

Mr. Key has feeding pens under construction. They may someday be large enough to take care of several thousand cattle. He has a large acreage adjoining the mill and says that in the future there may be enough pens to feed large herds of cattle. The

CONTROL PANEL—Commodore Ezell, manager of the Ezell-Key Grain Co., Snyder, Texas, is shown at the control panel in the company's feed mill.

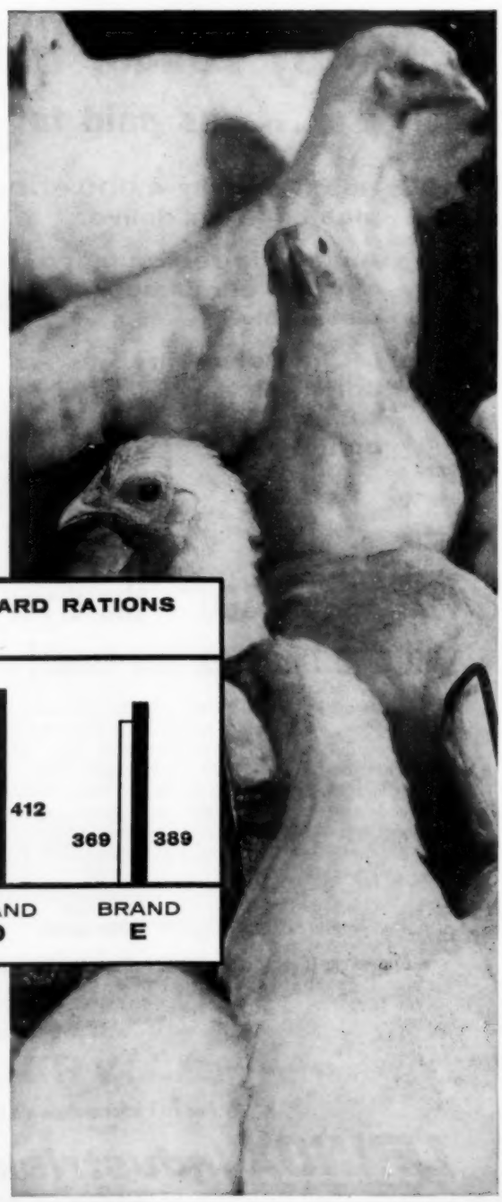
NEW MAZOFERM™
CORN FERMENTATION CONDENSED SOLUBLES

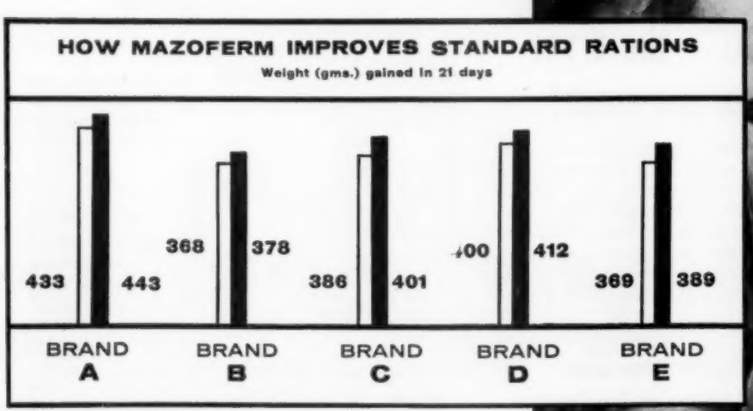
improves the performance of high quality commercial broiler rations

Rations containing adequate levels of fish and whey factor activity are improved in performance when MAZOFERM is added. Evidence of this important fact are the results of tests shown in the chart below.

Extracted from corn in the steeping process, MAZOFERM Corn Fermentation Condensed Solubles contains water soluble unidentified chick growth factors which are amplified by the fermentation process in MAZOFERM production.

MAZOFERM completely replaces whey factor materials and fish solubles. MAZOFERM permits substantial reduction of fish meal levels. An economical source of unidentified chick growth factors, its use enhances dollar returns over feed cost by $25 to $30 per 1000 broilers.



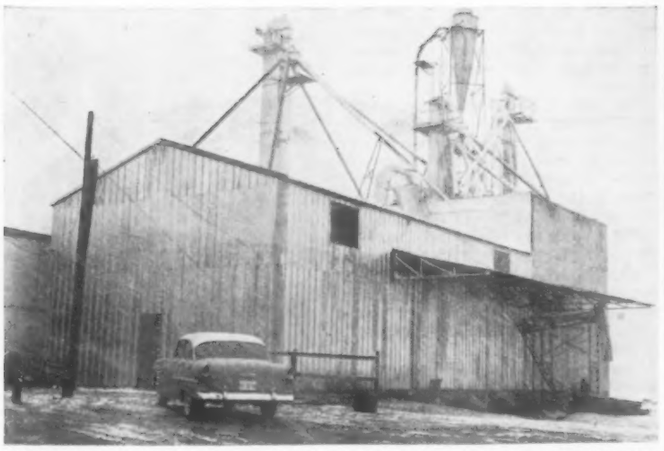


Results of tests of five well-known brands of broiler feed with and without MAZOFERM on randomized 6-day-old White Vantress cross cockerels. Bars represent weight increase using standard brand feed (white bar) and same brand with MAZOFERM (black bar). Average increase due to MAZOFERM was 3.5%.

Our new 28-page booklet summarizes experimental data covering three years' work. Write for your copy today.

CORN PRODUCTS SALES COMPANY, 17 Battery Place, New York 4, N.Y.

RILEY
BROKERS—
COMPLETE LINE OF FEED INGREDIENTS
939 BOARD OF TRADE
KANSAS CITY 6, MO.
BALTIMORE 1-2960



TEXAS MILL—This is the feed mill of the Ezell-Key Grain Co., located near Snyder, Texas. The mill is a push-button facility. Acreage adjacent to the mill is used as a feed laboratory and for several feeding projects planned or already under way by the firm. The mill has a capacity of 180 tons daily. The feeding tests "give us something to back up our sales talk," the officials said. A pig parlor and feeding pens for cattle have been built. The firm also plans a colony laying house.

pens under construction now will hold 1,800 cattle.

"Some we'll use for our work," he said, "but I also believe there is an opportunity in renting them out to commercial feeders. We'll charge a small rental fee and sell them feed. The feeders will save thousands of dollars in construction costs. They can come in or get out of the business whenever they choose."

Pig Parlors

Among other projects under way are pig parlors that have attracted a large amount of interest. The firm is also considering other programs. The main purpose, according to Mr. Meholin, is to show how farm grain can be utilized in all rations.

The firm reported this spring that it made $9 a head on its hogs after selling them on a 19¢ market. There are now 51 head in the parlor.

"We're already mixing rations for farmers in which their farm grain is

Hoffman

for vitamins

Hoffman-Taff Inc.
SPRINGFIELD, MISSOURI

ADVERTISING CAPS for . . .
the Most in Publicity and Good Will
Write Us for Samples and Prices
MINNESOTA SPECIALTY CO., INC.
121 N. 4th St., Minneapolis, 1, Minn.

CALL *Babe* or *Bob Stuart* for
★ MILL FEEDS ★ LINSEED MEAL ★ SOYMEAL
★ ALFALFA MEAL ★ SCREENINGS
RELIANCE FEED CO. FOR 34 YEARS Phone FE 2-2478 216 Phoenix Bldg. Minneapolis, Minn.

TWO QUALITY DRIED BLACKSTRAP MOLASSES PRODUCTS

Omalass

The original dried blackstrap molasses product. Each 100 lbs. contains the solids from 93 lbs. feeding cane molasses (23 lbs. of water removed) and 30 lbs. Corn Oil Meal. Convenient 50-lb. bags.

ScotchOLass

The thrifty dried blackstrap molasses. Each 100 lbs. contains the solids from 85 lbs. feeding cane molasses (21 lbs. of water removed) and 36 lbs. soybean mill feed. Handy 50-lb. bags.

BOTH ARE BACKED BY CONTINUOUS ADVERTISING

VyLactos LABORATORIES, INC.
1901 East Euclid Avenue
Des Moines 13, Iowa

VyLACTOS LABORATORIES, Inc.
1901 East Euclid Ave.
Des Moines 13, Iowa

Please send me complete details and prices on Omalass and Scotch O Lass.

Name .....
Company .....
Street .....
City ..... State .....

Planning a new mill or elevator?
KELLY DUPLEX can help you.

Maybe you've been thinking about a new mill—a new addition—or a new machine. Then again, maybe you've just been wondering how you can get MORE from your present space.

Whatever it is, we would like to talk to you about it.

We've shown a lot of others how good machinery and good planning can do wonders for their capacity, their efficiency, and their profits—at COMMON SENSE COST. The chances are we can do the same for you.

Don't hesitate to send us the coupon. There will be NO obligation—and NO high pressure salesmanship. We don't do business that way.

The Duplex Mill & Mfg. Co., Springfield, Ohio
We would like to talk to you about planning.
We're interested in _____
_____
NAME _____
FIRM _____
ADDRESS _____

CARGILL
Cargill CREATIVE PROCESSING
CREATIVE PROCESSORS OF FARM PRODUCTS

POULTRY STARTER AND GROWER?
Tastelation
Liqua-Solid
DRY FLAVORS
Double Strength
TASTE ENGINEERING, INC., 1401 W. Hubbard St., Chicago 22, Ill.

DIAMOND V BRAND
Fortify your feeds with
LIVE YEAST CULTURE
(Especially Prepared for Dry Mix Feeding)
Supplies: Vitamin B_{12} activity, live yeast digestive enzymes, B complex vitamins, plus other potent unidentified factors. Improves appetite, digestion (including rumen aid), health, growth, production. Increases feed utilization — lowers feed cost.
Live yeast values improve feeding results in recent State conducted tests.
New Yeast Folder Available
write . . . DIAMOND V MILLS, INC. • CEDAR RAPIDS, IOWA

utilized," he said. "In fact, the two or three poultrymen in this area really making high profits use homegrown grain mixed with a laying supplement."

The mill is completely operated by push button control. Grain can be unloaded from the side, either by auger or by dumping it into an underground chute. It can be taken overhead to the storage bins or down in the basement to the grinders. After being mixed, the feed can be sacked, run back out to the truck or stored.

The plant has 12 overhead bins and a total of 1.8 million pounds of grain storage. There is also a large warehouse where 200,000 bu. may be placed if needed.

The main equipment includes a master panel board, a 100-h.p. hammermill, a molasses mill with a car and a half tank underground, a pellet machine, seed cleaner, two horizontal mixers, electric bag sewing machine, and steam boilers for heating. The mill can turn out a total of 180 tons of feed daily.

In addition to making feed according to the customer's specifications, the company is making a national brand of feeds and sells a quantity of farm supplies.

The steer-feeding project has attracted interested feeders who kept a constant watch on the weight gains.

COMBINED OPERATION — Ezell-Key Grain Co., Snyder, Texas, combines feed milling with a feed lot operation used for profit as well as experimental purposes. At left is Marvin Key, president. At right is Commodore Ezell, manager. They are shown inside the feedlot where cattle are fed. The data gained are used for feeders' meetings.

The company will have a continuous open house, with visitors welcome to look over the livestock and poultry projects.

"If we can prove that scientific feeding and close management pay off by doing it ourselves," said Mr. Key, "we won't have much trouble convincing others of it."

Kansas City Flour Mill to Be Closed

KANSAS CITY — The North Kansas City mill of Flour Mills of America, Inc., will discontinue flour production about April 20, it was announced by J. R. Mulroy, FMA president, following a recent meeting of the board of directors.

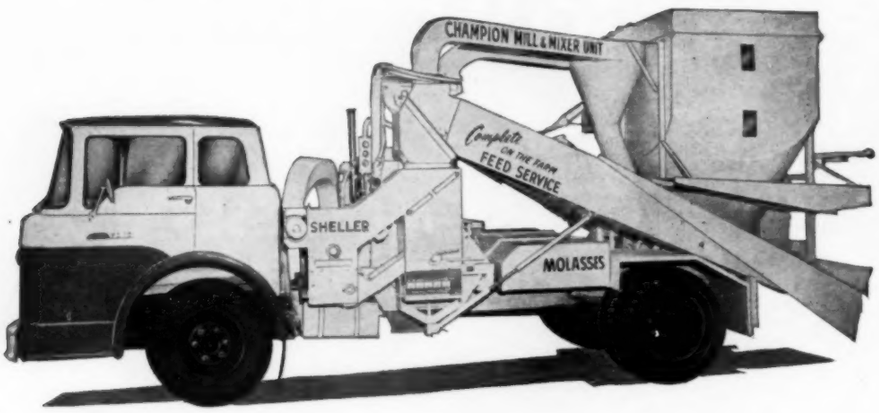
The shutdown will mark the close of the largest mill in the Southwest, rated at a capacity of 14,400 sacks a day. Approximately 75 mill employees will be affected by the shutdown. Corresponding reductions in the office staff will also be necessary, Mr. Mulroy said.

"The decision to idle the mill was taken as an economy move in view of the price level at which flour is being sold this year, making it practically impossible to secure enough business at a profitable level to operate the mill," Mr. Mulroy stated.

Production will be shifted to the St. Louis FMA plant which has a capacity of 11,000 sacks a day. Because of that mill's location, it can grind hard or soft winter or spring wheat, giving it a wider market than the North Kansas City plant. The St. Louis mill also has 50,000 cwt. of bulk storage capacity, compared with about 24,000 cwt. at the local mill.

The 2.3 million bushel grain storage capacity at North Kansas City will continue to be utilized.

CHAMPION
MOBILE EQUIPMENT



The Feed Industry's Greatest Mobile Value!

Now, with CHAMPION'S new sheller arrangement, you can furnish a more complete ON-THE-FARM feed service for your customers. With this arrangement, ear corn and grain are fed right into the hammermill or into the sheller—without an auxiliary feeder. This is the simplest, most trouble-free, sheller arrangement ever offered to the mobile feed industry. Two tons of concentrates can be loaded on the platform between the mill and mixer unit—no need for a second truck to haul concentrates! With its big, 2 to 3 tons mixing capacity, CHAMPION will mix more feed in less time, and this capacity provides a convenient bulk delivery when necessary—another reason why CHAMPION will increase your feed sales.

EXPERIENCED PERFORMANCE AT A REASONABLE PRICE

CHAMPION'S twenty-eight years of manufacturing experience brings to the mobile industry this fine, simple and rugged unit at a fair and honest price.

COMPLETE CHAMPION DELUXE UNIT
MOUNTED ON YOUR TRUCK

$9200.00
INCLUDING MOLASSES EQUIPMENT

$7950.00 Without Molasses Equipment

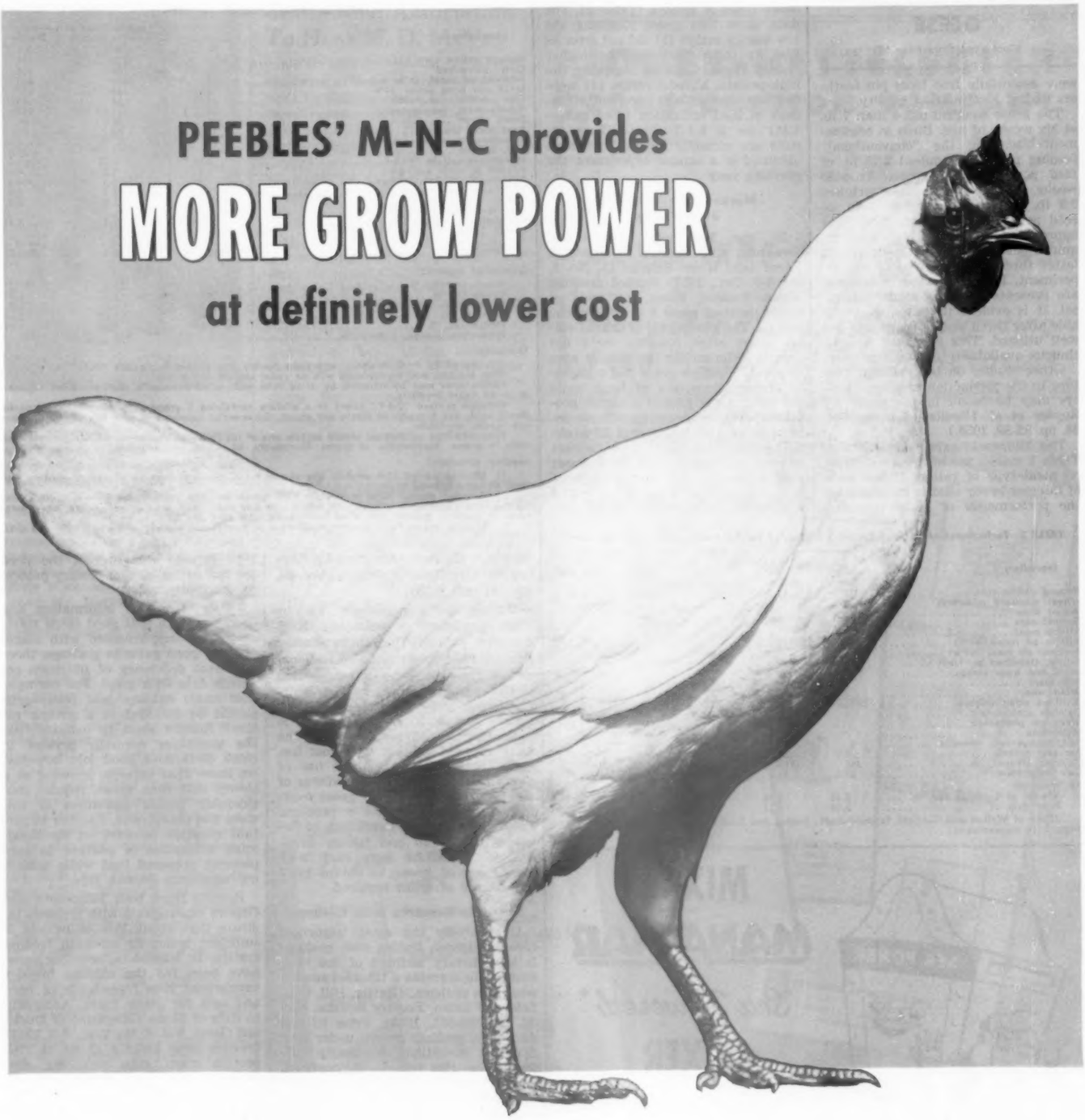
CHAMPION'S experienced performance is your assurance of TOP QUALITY AND TOP VALUE. Ask the man who knows—ask a Champion operator.

Let us help you survey the potential sales in your area

CHAMPION PORTABLE MILL CO.
2109 COMO AVENUE SOUTHEAST - MINNEAPOLIS 14, MINNESOTA

for the
FEED INDUSTRY
• Chemical Analyses
• Vitamin Assays
• Drug Assays
• Spectrographic Analyses
• Chick Feeding Tests
• Consultation
• Formula Reviews
Write for Schedule of Charges
FEED SERVICE DIVISION
LIME CREST RESEARCH LABORATORY
R. D. 1, Box 67 Newton, New Jersey
LIMESTONE PRODUCTS CORP. OF AMERICA

PEEBLES' M-N-C provides MORE GROW POWER at definitely lower cost



Scientific concentration adds 50% more nutrients!

Searching for ways to give your feeds a competitive edge? Then you want the story of Peebles' M-N-C (reduced lactose content)—packed with power to provide faster growth, better feed conversion. For M-N-C is concentrated to supply 50% more non-lactose nutrients than regular whey.

That's why Peebles' M-N-C enables you to step up feed efficiency at lower cost. Just 2% Peebles' M-N-C supplies the same amount of Whey Factor and other non-lactose nutrients as 3% regular whole dried whey.

Peebles' exclusive spray dried process retains all high activity unidentified growth factor benefits. M-N-C's spray dried texture assures you constant color and uniform distribution in feeds for lower mixing costs. Write or wire today for prices from shipping point nearest you.

32 PLANTS *Coast to Coast*

WESTERN CONDENSING COMPANY

APPLETON, WISCONSIN

World's Largest Supplier of Whey Products

GEESE

(Continued from page 18)

were essentially free from pin feathers and of good market quality.

The geese weighed more than 7 lb. at six weeks of age. Birds in confinement receiving the "conventional" feeding program required 2.25 lb. of feed per pound of goose. At nine weeks, this group of geese weighed 9.9 lb. and required about 3 lb. of feed per pound of goose. Note that approximately 5 lb. of feed were required per pound of gain during the latter three weeks' period of the experiment. Data for other treatments are presented for the reader's perusal. It is evident that pasture available after three weeks of age was not well utilized. This is traced to continuous availability of prepared feed.

Other studies on the value of pasture in the production of goose broilers may be found in the paper by Snyder et al. (Poultry Science, Vol. 34, pp. 35-38, 1955.)

The Minnesota experiment cited in Table 1 makes use of a corn-soybean oil meal type of ration. It has been of interest in our studies to determine the performance of geese receiving other types of rations (Table 2). The data show that geese receiving the low energy ration (1) did not grow as fast as those receiving the higher energy types. Goslings receiving the high-protein, high-fat ration (4) were heaviest and showed excellent efficiency of feed utilization (feed/gain—1.44) for a 5.4-lb. bird. These results are virtually identical to those obtained in a similar experiment the previous year

Market Acceptability of Junior Geese

In the Minnesota experiments, Swanson and Canfield (Minnesota Farm aand Home Science 15: No. 1, pp. 6-8, Oct., 1957) studied dressing losses, cooking losses and yield of edible meat of geese 8 to 16½ weeks of age. The percentage yields of edible meat after roasting were not greatly different for the various ages of geese. Younger geese had a slightly higher proportion of bone while the older geese yielded a higher proportion of pan drippings. These investigators also found that 26-week-old geese contained a somewhat smaller percentage of edible meat yield, again due to greater amounts of pan drippings (more body fat). The results of these studies agree very closely with those reported by Snyder and Orr (Poultry Science, Vol. 32, pp. 181-182, 1953).

TABLE 2. Performance of Goslings Receiving Rations of Varying Protein and Energy Content*

Ingredient	Ration I Bulky %	II -20 %	III 24-5 %	IV 28-15 %	V High prot. %
Ground yellow corn	30	57.5	50	28.5	46.5
Wheat standard middlings	15	...	...	...	...
Wheat bran	10	...	...	...	...
Ground oats	15	5	...	...	...
Alfalfa meal	5	2.5	2	2	2
Alfalfa oil meal (44%)	10	22.5	...	...	...
Soybean oil meal (50%)	...	...	30	40	35
Tallow, stabilized bl. fancy	...	...	5	15	2.5
Meat and bone scraps	7.5	5	...	...	...
Fish meal	3	4	5	6	6
Dried whey	2.5	1.5	2	2	2
Distillers dried solubles	...	...	2	2	2
Calcium carbonate	1	0.5	1.8	2.0	1.8
Dicalcium phosphate	...	0.5	1.2	1.5	1.2
Methionine	...	...	0.05	0.1	0.1
Salt, manganese, vitamins	+	+	+	+	+
Per cent protein	20.2	21.2	24.1	28.1	28.0
Calories (Fraps), lb.	755	912	997	1108	945
Calories/protein	37.3	43.0	41.5	39.5	33.7
Performance:					
Weight at 4 wk. of age, lb.	4.38	5.10	5.12	5.41	5.10
Feed/gain	2.08	1.91	1.73	1.44	1.73

*Data of Waibel and Canfield (unpublished). Emden and Toulouse male x Emden female goslings. Data sex-averaged.

TABLE 3. Feeding Programs for Geese**

Ingredient—	See Feeding Directions— Starter lb.	Grower on pasture lb.	Breeder lb.
Ground yellow corn	1014	1105	604
Oats, pulverized	100	100	100
Soybean oil meal, 44%, solvent	600	500	600
Meat and bone scrap, 50%	100	100	300
Fish solubles, condensed*	40	20	80
Alfalfa meal, dehydrated	50	...	150
Dried whey†	30	20	60
Bone meal, steamed	40	40	60
Limestone (calcium carbonate)	10	...	...
Salt, iodized	10	10	30
Manganese sulfate (65%)	0.50	0.50	1.0
Vitamin A (5000 I.U./gm.)	1.0	1.0	4.0
Vitamin D (1500 I.C.U./gm.)	1.0	1.0	4.0
Vitamin mixture "2-4-9"‡	1.0	1.0	2.0
Vitamin B_{12} (6 mg./lb.)	1.0	1.0	2.0
Choline chloride (25% product)	1.0	...	...
Antibiotic supplement¶	1.0	1.0	3.0
Niacin (grams of pure vitamin)	40 gm.	...	...
Total, lb.	2000.5	2000.5	2000.0
Calculated analysis:			
Crude protein, %	22.3	20.2	27.2
Crude fat, %	3.2	3.3	3.7
Crude fiber, %	4.0	3.0	5.0
Calcium, %	1.40	1.12	2.56
Phosphorus, %	0.88	0.78	1.43
Productive energy, calories/lb.	860	910	725

Footnotes:

**Prepared by P. E. Waibel. Minnesota Poultry Department Publication 5706.

*Fish solubles may be replaced with an equal amount of fish meal.

†Dried whey may be replaced by dried skim milk, dried buttermilk, distillers dried solubles, or dried yeast products.

‡Vitamin mixture "2-4-9" refers to a mixture containing 2 grams riboflavin, 4 grams pantothenic acid, and 9 grams of niacin per pound. Commercial supplements with this vitamin potency are readily available.

¶The antibiotic supplement should contain one of the following per pound of supplement: Penicillin, 4 grams; Aureomycin, 10 grams; Terramycin, 10 grams; or bacitracin, 10 grams.

Feeding directions:

1. Starting period (0-4 weeks): Use starter mash. Goslings may be placed on pasture, but feed no supplemental grain.
2. Growing period (after 4 weeks): With geese on good pasture, the grower mash should be fed in a free choice manner with whole corn and oats. With poor or no pasture, use starter mash in place of grower, and allow free choice with corn and oats.
3. Breeder geese: Feed breeder supplement in free choice manner with whole corn and oats.

During the past decade, various goose producing organizations have financed publicity for their product through the Poultry and Egg National Board. Thus, the goose is represented in the extensive literature of this organization along with chicken, eggs, turkey and duck. If young goose is cooked properly, it will appeal to the taste of most people. The most frequent objection against the use of geese for table use is the fatness of the bird, but with junior geese overfatness certainly is not a problem. In contrast to the general lack of finish with chicken and turkey broilers, it should be very easy with production of geese to obtain most any degree of finish required.

Nutrition Research with Goslings

Undoubtedly the most important recent research finding with goslings is that dietary addition of the vitamin niacin corrects a troublesome leg weakness problem. (Battig, Hill, Canfield and Sloan, Poultry Science, Vol. 32, pp. 550-551, 1953). Prior to this discovery, goslings grown under confinement conditions frequently suffered from this perosis. By contrast, goslings raised on grass do not appear to suffer this difficulty. This leg weakness problem is probably the basis for the belief that grass is essential to the growth of goslings. In recent battery studies in the nutrition laboratory of the University of Minnesota, grass juice added to "complete" diets did not result in improved growth or gosling "quality."

Further Minnesota research indicates that riboflavin also tends to be deficient in practical type starting diets. Quantitative studies on the requirement for this vitamin are underway. Excepting for niacin and riboflavin, goslings seemed to receive enough of the other B vitamins in a corn-soybean meal type ration. In view of the small cost of thorough vitamin supplementation, however, it is not desirable to attempt to formulate the cheapest possible ration with the limited available information.

Results of Aitkin at the Central Experiment Station, Ottawa, Canada, (Poultry Digest, Vol. 15, pp. 231-232, 1956) suggest that the protein requirement of goslings is about 20% of the ration. Other studies by Yacowitz, Bayes and Dakan (paper presented at third annual Goose Day, Cleveland, Ohio, July 22, 1954) suggested that approximately 24% of protein produced better feathering and growth than lower protein levels. Protein requirement experiments at Minnesota using corn-soybean meal type rations also suggest the need for more than 20 %of dietary protein for maximum gains.

Other than this information and the knowledge that good chick starter rations supplemented with niacin produce good gains in goslings, there is a real deficiency of nutrition research data with geese. For example, how much calcium and phosphorus should be included in a gosling ration? Results seem to indicate that the quantities normally present in chick diets do a good job; however, we know that turkeys, growing at a slower rate than geese, require considerably higher quantities of calcium and phosphorus. Another important question revolves on the maximum utilization of pasture to supplement prepared feed while achieving maximum growth rate.

Results from both Minnesota and Ottawa experiments with breeders indicate that about 15% of protein is sufficient under an all-mash feeding system. In Minnesota, breeding geese have been fed the chicken breeder supplement plus free-choice of corn and oats for many years. According to data of Sloan (Magazine of Ducks and Geese, Vol. 4, No. 2, pp. 8-9, 1953) breeder geese given a choice of 27% protein mash, corn and oats consumed 20-25% mash, 30-45% oats and 35-60% corn. It is further stated that with good egg production, breeders held at the ratio of two females to one male consumed about ⅔ lb. of feed per day per bird.

Feeding Programs for Geese

Starting, growing and breeding formulas for geese, as suggested in Minnesota Poultry Department Publication No. 5706, are given in Table 3. These formulas were designed for maximum growth rate. It is quite obvious that if maximum growth rate were not desired, the geese could be forced to utilize weeds and pasture during the growing period.

The starter and grower formulas have been used successfully in production of junior geese by nine weeks of age and the breeder formula has been used on the University of Minnesota breeding flock.

Why Aren't Geese Big Business?

Of chickens, turkeys, ducks and geese in our American economy, the latter are generally the least important. Yet, among poultry, the goose is fastest growing, most efficient in food conversion, practically free of disease, and best as forager.

Why, then, do geese appear content with the rear position in the poultry parade? There are actually two very good reasons:

1. They are poor reproducers. (At present goslings cost approximately

MIXING
MANAMAR
"Sea Powered"
MIXER
that builds
PROFITS

ManAmar-fed poultry and swine show it — in the fast gains and high production your customers want. Mixing ManAmar, with Sea Kelp base, is rich in B_{12}, other B-complex factors, unidentified growth factors and trace minerals. It's an easy mixer . . . gets results . . . builds profits for you. Order Mixing ManAmar now!

Write our laboratories if you'd like complete data, product analysis and help with your formulations.

PHILIP R. PARK, INC.
FEED ENGINEERS
"Sea Powered" MANAMAR Supplements Dept. F
Berth 42, Outer Harbor, San Pedro, California • 145 West First Street, Dubuque, Iowa

Roger P. Moreau

IMPORT MANAGER—Roger P. Moreau, Montreal, Canada, secretary of the eastern division of the Canadian Feed Manufacturers Assn., has been appointed manager of the feed ingredients and dairy products department of Ernest St. Arnaud, Inc., Montreal importer, exporter and merchandise broker. He was formerly with the Montreal office of Balfour Guthrie (Canada), Ltd. For the past 11 years Mr. Moreau has been in the marketing of raw materials used in the manufacture of cattle feeds.

Cottonseed Association To Hear M. D. McVay

MEMPHIS, TENN.—M. D. McVay, chairman of the board, National Soybean Processors Assn., will be a featured speaker at the 62nd annual convention of the National Cottonseed Products Assn.

The announcement was made in Memphis by Dupuy Bateman, Jr., president of the cottonseed group. The convention will be held May 5-6 at the Atlanta (Ga.) Biltmore Hotel.

Mr. McVay is a native of Kansas and a graduate of Kansas State College. He joined Cargill, Inc., in 1940 and, with four years out for military service, has been with the firm since that time.

He is now assistant vice president and deputy head of the company's vegetable oil division. He will speak May 6 on the subject "Working Together for Greater Markets."

JONES-HETTELSATER CONSTRUCTION COMPANY

1911 Baltimore BA 1-3930

Kansas City 8, Mo.

DESIGNERS AND BUILDERS of Many of the Country's Outstanding Feed Plants and Grain Elevators

$1.25, which is a deterrent to large scale production.)

2. Enough quality geese are not produced to create a solid year-around market.

Reason No. 1 is certainly more basic. The market problem would undoubtedly solve itself if geese could be produced in greater numbers.

Information concerning breeds, breeding, and management of geese may be obtained from the following sources:

Lee, A. R., and Dakan, 1951. Goose Raising. USDA Farmer's Bul. 767.

Hurd, L. M., 1951. Goose Raising, Cornell Extension Bul. 823.

Canfield, T. H., 1953. Sex determination of geese. Minn. Ag. Exp. Sta. Bul. 403.

Johnson, A. S., 1954. Artificial insemination and the duration of fertility of geese. Poultry Sci. 33: 638-640.

Magazine of Ducks and Geese. Published by American Waterfowl Assn., P.O. Box 1890, Milwaukee 1, Wis. (Subscription $2 per year.)

While numerous problems must be solved before the production of junior geese will develop into substantial proportions, the authors and others do not doubt that there is room on the dinner table for this product. Our American agriculture has a knack for bringing production in line with the consumer's wants. It will be interesting to watch if this occurs with the production of junior geese.

Whitmoyer

KEMITRACIN

the purified ANTIBIOTIC complex—that does your feed antibiotic job better!

Send for complete scientific data.

WHITMOYER LABORATORIES, Inc.

MYERSTOWN, PENNA.

Business-Builders for Feed Manufacturers

"Do-It-Yourself" Information for Farmers

ALSO AVAILABLE IN 50-LB. BAGS

Here is the ideal, fast-selling package for direct sales to farmers and cattlemen.

These authoritative leaflets on the advantages and correct usage of Paco Molasses Distillers Dried Solubles are responsible for improvement and increased business in all formula feeds. They contain exactly the kind of information wanted by Feed Manufacturers . . . no exaggerated claims, no "bull." Just the facts on what PACO is, what it will do, what it has done, how to use it for bigger profits.

The complete line of Paco folders is now available to all Feed Manufacturers and Dealers, for their own information, along with other literature to distribute to their customers. If you are not acquainted with PACO and its many advantages as a fortifier and "freshener" for all types of feeds, we will be pleased to send by return mail the data you check on coupon below.

PACO MOLASSES DISTILLERS DRIED SOLUBLES

A PRODUCT OF
PUBLICKER INDUSTRIES INC.
ANIMAL FEED SALES DEPARTMENT
1429 WALNUT STREET, PHILADELPHIA 2, PA.
PHONE: LOCUST 4-1400

PUBLICKER INDUSTRIES INC.
Animal Feed Sales Department, 1429 Walnut St., Philadelphia 2, Pa.

Without obligation send the following:

Check Here
- ☐ POULTRY FEEDS with PACO
- ☐ SWINE FEEDS with PACO
- ☐ DAIRY and BEEF CATTLE FEEDS with PACO

Folders to distribute to our customers:

Indicate no. desired
- CUSTOM MIX DAIRY FEEDS with PACO
- FARM USES of PACO

CLIP THIS COUPON TO YOUR LETTERHEAD

MIDWEST SALES AGENT—Publicker Alcohol & Chemical Sales Corporation, 101 Arsenal St., St. Louis, Missouri. Telephone: PRospect 6-0858

GEESE

(Continued from page 18)

were essentially free from pin feathers and of good market quality.

The geese weighed more than 7 lb. at six weeks of age. Birds in confinement receiving the "conventional" feeding program required 2.25 lb. of feed per pound of goose. At nine weeks, this group of geese weighed 9.9 lb. and required about 3 lb. of feed per pound of goose. Note that approximately 5 lb. of feed were required per pound of gain during the latter three weeks' period of the experiment. Data for other treatments are presented for the reader's perusal. It is evident that pasture available after three weeks of age was not well utilized. This is traced to continuous availability of prepared feed.

Other studies on the value of pasture in the production of goose broilers may be found in the paper by Snyder et al. (Poultry Science, Vol. 34, pp. 35-38, 1955.)

The Minnesota experiment cited in Table 1 makes use of a corn-soybean oil meal type of ration. It has been of interest in our studies to determine the performance of geese receiving other types of rations (Table 2). The data show that geese receiving the low energy ration (1) did not grow as fast as those receiving the higher energy types. Goslings receiving the high-protein, high-fat ration (4) were heaviest and showed excellent efficiency of feed utilization (feed/gain—1.44) for a 5.4-lb. bird. These results are virtually identical to those obtained in a similar experiment the previous year

Market Acceptability of Junior Geese

In the Minnesota experiments, Swanson and Canfield (Minnesota Farm aand Home Science 15: No. 1, pp. 6-8, Oct., 1957) studied dressing losses, cooking losses and yield of edible meat of geese 8 to 16½ weeks of age. The percentage yields of edible meat after roasting were not greatly different for the various ages of geese. Younger geese had a slightly higher proportion of bone while the older geese yielded a higher proportion of pan drippings. These investigators also found that 26-week-old geese contained a somewhat smaller percentage of edible meat yield, again due to greater amounts of pan drippings (more body fat). The results of these studies agree very closely with those reported by Snyder and Orr (Poultry Science, Vol. 32, pp. 181-182, 1953).

TABLE 2. Performance of Goslings Receiving Rations of Varying Protein and Energy Content*

Ingredient	Ration I Bulky %	II -20 %	III 24-5 %	IV 28-15 %	V High prot. %
Ground yellow corn	30	57.5	50	28.5	46.5
Wheat standard middlings	15	...	...	...	...
Wheat bran	10	...	...	...	...
Ground oats	15	5	...	...	...
Alfalfa meal	5	2.5	2	2	2
Alfalfa oil meal (44%)	10	22.5	...	...	...
Soybean oil meal (50%)	...	...	30	40	35
Tallow, stabilized bl. fancy	...	...	5	15	2.5
Meat and bone scraps	7.5	5	...	...	...
Fish meal	3	4	5	6	6
Dried whey	2.5	1.5	2	2	2
Distillers dried solubles	...	...	2	2	2
Calcium carbonate	1	0.5	1.8	2.0	1.8
Dicalcium phosphate	...	0.5	1.2	1.5	1.2
Methionine	...	...	0.05	0.1	0.1
Salt, manganese, vitamins	+	+	+	+	+
Per cent protein	20.2	21.2	24.1	28.1	28.0
Calories (Fraps), lb.	755	912	997	1108	945
Calories/protein	37.3	43.0	41.5	39.5	33.7
Performance:					
Weight at 4 wk. of age, lb.	4.38	5.10	5.12	5.41	5.10
Feed/gain	2.08	1.91	1.73	1.44	1.73

*Data of Waibel and Canfield (unpublished). Emden and Toulouse male x Emden female goslings. Data sex-averaged.

TABLE 3. Feeding Programs for Geese**

Ingredient—	See Feeding Directions— Starter lb.	Grower on pasture lb.	Breeder lb.
Ground yellow corn	1014	1105	604
Oats, pulverized	100	100	100
Soybean oil meal, 44%, solvent	400	500	600
Meat and bone scrap, 50%	100	100	300
Fish solubles, condensed*	40	20	80
Alfalfa meal, dehydrated	50	...	150
Dried whey†	30	20	60
Bone meal, steamed	40	40	60
Limestone (calcium carbonate)	10	...	...
Salt, iodized	10	10	30
Manganese sulfate (65%)	0.50	0.50	1.0
Vitamin A (5000 I.U./gm.)	1.0	1.0	4.0
Vitamin D (1500 I.C.U./gm.)	1.0	1.0	4.0
Vitamin mixture "2-4-9"‡	1.0	1.0	2.0
Vitamin B_{12} (6 mg./lb.)	1.0	1.0	2.0
Choline chloride (25% product)	1.0	...	...
Antibiotic supplement¶	1.0	1.0	3.0
Niacin (grams of pure vitamin)	40 gm.	...	...
Total, lb.	2000.5	2000.5	2000.0
Calculated analysis:			
Crude protein, %	22.3	20.2	27.2
Crude fat, %	3.2	3.3	3.7
Crude fiber, %	4.0	3.0	5.0
Calcium, %	1.40	1.12	2.56
Phosphorus, %	0.88	0.78	1.43
Productive energy, calories/lb.	860	910	725

Footnotes:

**Prepared by P. E. Waibel. Minnesota Poultry Department Publication 5706.

*Fish solubles may be replaced with an equal amount of fish meal.

†Dried whey may be replaced by dried skim milk, dried buttermilk, distillers dried solubles, or dried yeast products.

‡Vitamin mixture "2-4-9" refers to a mixture containing 2 grams riboflavin, 4 grams pantothenic acid, and 9 grams of niacin per pound. Commercial supplements with this vitamin potency are readily available.

¶The antibiotic supplement should contain one of the following per pound of supplement: Penicillin, 4 grams; Aureomycin, 10 grams; Terramycin, 10 grams; or bacitracin, 10 grams.

Feeding directions:

1. Starting period (0-4 weeks): Use starter mash. Goslings may be placed on pasture, but feed no supplemental grain.
2. Growing period (after 4 weeks): With geese on good pasture, the grower mash should be fed in a free choice manner with whole corn and oats. With poor or no pasture, use starter mash in place of grower, and allow free choice with corn and oats.
3. Breeder geese: Feed breeder supplement in free choice manner with whole corn and oats.

During the past decade, various goose producing organizations have financed publicity for their product through the Poultry and Egg National Board. Thus, the goose is represented in the extensive literature of this organization along with chicken, eggs, turkey and duck. If young goose is cooked properly, it will appeal to the taste of most people. The most frequent objection against the use of geese for table use is the fatness of the bird, but with junior geese overfatness certainly is not a problem. In contrast to the general lack of finish with chicken and turkey broilers, it should be very easy with production of geese to obtain most any degree of finish required.

Nutrition Research with Goslings

Undoubtedly the most important recent research finding with goslings is that dietary addition of the vitamin niacin corrects a troublesome leg weakness problem. (Battig, Hill, Canfield and Sloan, Poultry Science, Vol. 32, pp. 550-551, 1953). Prior to this discovery, goslings grown under confinement conditions frequently suffered from this perosis. By contrast, goslings raised on grass do not appear to suffer this difficulty. This leg weakness problem is probably the basis for the belief that grass is essential to the growth of goslings. In recent battery studies in the nutrition laboratory of the University of Minnesota, grass juice added to "complete" diets did not result in improved growth or gosling "quality."

Further Minnesota research indicates that riboflavin also tends to be deficient in practical type starting diets. Quantitative studies on the requirement for this vitamin are underway. Excepting for niacin and riboflavin, goslings seemed to receive enough of the other B vitamins in a corn-soybean meal type ration. In view of the small cost of thorough vitamin supplementation, however, it is not desirable to attempt to formulate the cheapest possible ration with the limited available information.

Results of Aitkin at the Central Experiment Station, Ottawa, Canada, (Poultry Digest, Vol. 15, pp. 231-232, 1956) suggest that the protein requirement of goslings is about 20% of the ration. Other studies by Yacowitz, Bayes and Dakan (paper presented at third annual Goose Day, Cleveland, Ohio, July 22, 1954) suggested that approximately 24% of protein produced better feathering and growth than lower protein levels. Protein requirement experiments at Minnesota using corn-soybean meal type rations also suggest the need for more than 20 %of dietary protein for maximum gains.

Other than this information and the knowledge that good chick starter rations supplemented with niacin produce good gains in goslings, there is a real deficiency of nutrition research data with geese. For example, how much calcium and phosphorus should be included in a gosling ration? Results seem to indicate that the quantities normally present in chick diets do a good job; however, we know that turkeys, growing at a slower rate than geese, require considerably higher quantities of calcium and phosphorus. Another important question revolves on the maximum utilization of pasture to supplement prepared feed while achieving maximum growth rate.

Results from both Minnesota and Ottawa experiments with breeders indicate that about 15% of protein is sufficient under an all-mash feeding system. In Minnesota, breeding geese have been fed the chicken breeder supplement plus free-choice of corn and oats for many years. According to data of Sloan (Magazine of Ducks and Geese, Vol. 4, No. 2, pp. 8-9, 1953) breeder geese given a choice of 27% protein mash, corn and oats consumed 20-25% mash, 30-45% oats and 35-60% corn. It is further stated that with good egg production, breeders held at the ratio of two females to one male consumed about ⅘ lb. of feed per day per bird.

Feeding Programs for Geese

Starting, growing and breeding formulas for geese, as suggested in Minnesota Poultry Department Publication No. 5706, are given in Table 3. These formulas were designed for maximum growth rate. It is quite obvious that if maximum growth rate were not desired, the geese could be forced to utilize weeds and pasture during the growing period.

The starter and grower formulas have been used successfully in production of junior geese by nine weeks of age and the breeder formula has been used on the University of Minnesota breeding flock.

Why Aren't Geese Big Business?

Of chickens, turkeys, ducks and geese in our American economy, the latter are generally the least important. Yet, among poultry, the goose is fastest growing, most efficient in food conversion, practically free of disease, and best as forager.

Why, then, do geese appear content with the rear position in the poultry parade? There are actually two very good reasons:

1. They are poor reproducers. (At present goslings cost approximately

MIXING
MANAMAR
"Sea Powered"
MIXER
that builds
PROFITS

ManAmar-fed poultry and swine show it — in the fast gains and high production your customers want. Mixing ManAmar, with Sea Kelp base, is rich in B_{12}, other B-complex factors, unidentified growth factors and trace minerals. It's an easy mixer . . . gets results . . . builds profits for you. Order Mixing ManAmar now!

Write our laboratories if you'd like complete data, product analysis and help with your formulations.

PHILIP R. PARK, INC.
FEED ENGINEERS
"Sea Powered" MANAMAR Supplements Dept. F
Berth 42, Outer Harbor, San Pedro, California • 145 West First Street, Dubuque, Iowa

Roger P. Moreau

IMPORT MANAGER—Roger P. Moreau, Montreal, Canada, secretary of the eastern division of the Canadian Feed Manufacturers Assn., has been appointed manager of the feed ingredients and dairy products department of Ernest St. Arnaud, Inc., Montreal importer, exporter and merchandise broker. He was formerly with the Montreal office of Balfour Guthrie (Canada), Ltd. For the past 11 years Mr. Moreau has been in the marketing of raw materials used in the manufacture of cattle feeds.

Cottonseed Association To Hear M. D. McVay

MEMPHIS, TENN.—M. D. McVay, chairman of the board, National Soybean Processors Assn., will be a featured speaker at the 62nd annual convention of the National Cottonseed Products Assn.

The announcement was made in Memphis by Dupuy Bateman, Jr., president of the cottonseed group. The convention will be held May 5-6 at the Atlanta (Ga.) Biltmore Hotel.

Mr. McVay is a native of Kansas and a graduate of Kansas State College. He joined Cargill, Inc., in 1940 and, with four years out for military service, has been with the firm since that time.

He is now assistant vice president and deputy head of the company's vegetable oil division. He will speak May 6 on the subject "Working Together for Greater Markets."

JONES-HETTELSATER CONSTRUCTION COMPANY

1911 Baltimore BA 1-3930

Kansas City 8, Mo.

DESIGNERS AND BUILDERS of Many of the Country's Outstanding Feed Plants and Grain Elevators

$1.25, which is a deterrent to large scale production.)

2. Enough quality geese are not produced to create a solid year-around market.

Reason No. 1 is certainly more basic. The market problem would undoubtedly solve itself if geese could be produced in greater numbers.

Information concerning breeds, breeding, and management of geese may be obtained from the following sources:

Lee, A. R., and Dakan, 1951. Goose Raising. USDA Farmer's Bul. 767.

Hurd, L. M., 1951. Goose Raising, Cornell Extension Bul. 823.

Canfield, T. H., 1953. Sex determination of geese. Minn. Ag. Exp. Sta. Bul. 403.

Johnson, A. S., 1954. Artificial insemination and the duration of fertility of geese. Poultry Sci. 33: 638-640.

Magazine of Ducks and Geese. Published by American Waterfowl Assn., P.O. Box 1890, Milwaukee 1, Wis. (Subscription $2 per year.)

While numerous problems must be solved before the production of junior geese will develop into substantial proportions, the authors and others do not doubt that there is room on the dinner table for this product. Our American agriculture has a knack for bringing production in line with the consumer's wants. It will be interesting to watch if this occurs with the production of junior geese.

Whitmoyer

KEMITRACIN

the purified ANTIBIOTIC complex—that does your feed antibiotic job better!

Send for complete scientific data.

WHITMOYER LABORATORIES, Inc.

MYERSTOWN, PENNA.

Business-Builders for Feed Manufacturers

"Do-It-Yourself" Information for Farmers

ALSO AVAILABLE IN 50-LB. BAGS

Here is the ideal, fast-selling package for direct sales to farmers and cattlemen.

These authoritative leaflets on the advantages and correct usage of Paco Molasses Distillers Dried Solubles are responsible for improvement and increased business in all formula feeds. They contain exactly the kind of information wanted by Feed Manufacturers . . . no exaggerated claims, no "bull." Just the facts on what PACO is, what it will do, what it has done, how to use it for bigger profits.

The complete line of Paco folders is now available to all Feed Manufacturers and Dealers, for their own information, along with other literature to distribute to their customers. If you are not acquainted with PACO and its many advantages as a fortifier and "freshener" for all types of feeds, we will be pleased to send by return mail the data you check on coupon below.

PACO MOLASSES DISTILLERS DRIED SOLUBLES

A PRODUCT OF
PUBLICKER INDUSTRIES INC.
ANIMAL FEED SALES DEPARTMENT
1429 WALNUT STREET, PHILADELPHIA 2, PA.
PHONE: LOCUST 4-1400

PUBLICKER INDUSTRIES INC.
Animal Feed Sales Department, 1429 Walnut St., Philadelphia 2, Pa.

Without obligation send the following:

Check Here
- ☐ POULTRY FEEDS with PACO
- ☐ SWINE FEEDS with PACO
- ☐ DAIRY and BEEF CATTLE FEEDS with PACO

Folders to distribute to our customers:

Indicate no. desired
- CUSTOM MIX DAIRY FEEDS with PACO
- FARM USES of PACO

CLIP THIS COUPON TO YOUR LETTERHEAD

MIDWEST SALES AGENT—Publicker Alcohol & Chemical Sales Corporation, 101 Arsenal St., St. Louis, Missouri. Telephone: PRospect 6-0858

PUT GUARANTEED POTENCY RESULTS INTO YOUR OWN FEEDS AT LOW COST!

• YOU'LL INCREASE YOUR FEED SALES! • GET MORE REPEAT BUSINESS!
• GAIN HUNDREDS OF SATISFIED CUSTOMERS!

Feed Manufacturers everywhere are cashing in now on the HIGH POTENCY VITAMIN FORTIFICATION trend in feeds. They know that with JERSEE VITAL-MIN they have a fine PRE-MIX that has never failed to give results of guaranteed potency.

JERSEE VITAL-MIN
A TOP QUALITY MULTI-VITAMIN PRE-MIX

Contains the necessary Vitamins, Antibiotics, Amino Acids, and Trace Minerals. Now you can Vitamin Fortify your own feeds with guaranteed potency for just a few cents a bag. JERSEE VITAL-MIN makes your feeds better, brings you more new business, repeat orders and a host of satisfied customers.

WRITE TODAY FOR DEALER'S SALES HELPS

Jersee jobbers and warehouses from coast to coast are eager to help you stabilize your feeds with Jersee Vital-Min.

JERSEE
VITAL-MIN
a Pre-Mix
VITAMINS MINERALS

JERSEE to MAKE PROFITS RISE!

THE JERSEE CO. MINNEAPOLIS MINNESOTA

Official USDA Report Shows Turkey Production Up, Income Down in 1957

WASHINGTON—The U.S. Department of Agriculture, in a final report on farm production, disposition, cash receipts and gross income of the turkey industry for 1957, shows that production in 1957 totaled about 81 million birds.

This was a 6% increase over 1956—an increase reflected in all regions of the nation but the north Atlantic states, where production was down 14%.

California was once again the nation's champion turkey producer with 14.7 million turkeys. Minnesota was second with 9.9 million, Virginia was third with 7.1 million, and Iowa, Texas, Missouri and Ohio followed with 6.3 million, 4.8 million, 3.2 million and 3 million, respectively. These seven states accounted for 60% of the 1957 production.

The west north central states, leading production area of the U.S., raised about 28% of the nation's output. The West raised 26%, the south Atlantic 17%, the east north central 13%, the south central 11% and the north Atlantic 5%.

Heavy Breeds Up

Growers raised 67.8 million heavy breed turkeys in 1957, a 7% increase over 1956, and they raised 13.4 million light breeds, a decrease of 2%. In 1957, heavy white breeds accounted for more than one fifth of all heavy breed turkeys raised.

Turkeys sold totaled 80.5 million birds in 1957, 7% more than in 1956. Numbers sold increased in all parts of the country but the north Atlantic. Growers indicated that during 1957 they sold 79% of the light breeds, 34% of the heavy whites and 2% of the bronze and other heavy breeds as fryer-roasters.

Holdings of breeder hens Jan. 1, 1958, were estimated at 3 million birds, a decrease of 6% from the previous year. Light breeds were estimated at 424,000, a decrease of 11%. The number of all other turkeys on hand Jan. 1 (market birds and breeder toms) was 3% below a year earlier.

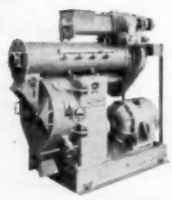
Prices received for turkeys during 1957 averaged 23.4¢ lb. live weight, compared with 27.2¢ in 1956. Cash receipts from the sale of 1,343 million pounds, live weight, of turkeys in 1957 totaled $314 million—7% less than in 1956. The increase in pounds sold was more than offset by the 14% cut in average price received by growers.

Death loss of poults in 1957 was 9.7% of the number started, compared with 9.1% in 1956. Death loss was about the same as in 1956 in the north Atlantic, east north central, west north central and West. Death loss in the south Atlantic was 9%, compared with 10% the previous year. Loss was 12% in the south central, compared with 9% in 1956. Texas losses were reported heavy because of floods, hail, windstorm and a higher-than-usual disease loss. Breeder hen losses during the year were 6%, compared to 6.6% in 1956.

IT'S NO ACCIDENT

that this ____Pellet Makes Profits!

because it's made by CPM —your assurance of top uniformity, quality, capacity —at lowest cost per ton!



Biggest Producer: The CALIFORNIA 100 hp "Century"—the quality mill that produces any pellet size and shape—at lowest cost per ton!

Everything you need in a pellet mill for *profitable* operations, you'll find in *California* Pellet Mills—and *only* in CPM.

The clear-cut evidences of CPM leadership in this highly specialized field are unmistakable: this is the pellet mill that first made pelleting profitable, some quarter of a century ago. The priceless engineering skills and ingenuity developed during this period were never more pronounced than in the CPM Pellet Mill you can buy today.

So where *your* future profits are at stake, play it safe: specify the finest. Install a CPM. Get complete details today, and you'll see why it's no accident that "More California Pellet Mills are sold today than all other makes combined!"

CPM CALIFORNIA PELLET MILLS

California Pellet Mill Company
1800 Folsom St., San Francisco 3, California
1114 E. Wabash Ave., Crawfordsville, Indiana
101 E. 15th Ave., North Kansas City 16, Missouri

Sales & Service Representatives also in: Albany • Atlanta • Columbus Davenport • Denver • Fort Worth • Los Angeles • Minneapolis Oklahoma City • Omaha • Richmond • Seattle • St. Louis

ONLY CPM MAKES A COMPLETE LINE OF PELLET MILLS

James Roberts Given New Post at Koppers

PITTSBURGH, PA. — James A. Roberts has been appointed manager of specialty chemical sales, tar products division, Koppers Co., Inc., Pittsburgh, it was announced by J. C. Macon, Jr., sales manager of the division.

In his new new position, Mr. Roberts will be responsible for the promotion and sale of Koppers antioxidants produced at the Koppers Oil City, Pa., plant. These include BHT, a supplement used by the food and feed industries as a stabilizer for lard, other edible oils and for animal feeds, and dbpc for the utility and petroleum industries.

Mr. Roberts is a graduate of West Virginia Wesleyan College with a degree in chemical engineering. He came to Koppers in 1947 in the chemical division and was employed in various capacities until his recent promotion and transfer to the tar products division in Pittsburgh.

REMEMBER TO ORDER
CHASE BAGS
There's None Better!

IN CANADA

TORONTO ELEVATORS LIMITED

TINTON CARROLL

YVON DULUDE

JOHN FIELD

CAN SERVE YOU BEST

Representing

CDP

CORONET DEFLUORINATED PHOSPHATE

Nutritionally, CDP is a tried and tested source of phosphorus. CDP is all biologically useable, making it the lowest cost, quality phosphorus product.

DIKAL

CORONET DICALCIUM PHOSPHATE

A premium phosphorus supplement that boosts feed performance.

WARNER

IN EASTERN CANADA

"The House of QUALITY equipment." Carried in warehouses at Montreal and Toronto.

DOUBLE DIAMOND

Manufacturers of Double Diamond Brand Linseed Oil, Soybean Oil, Double Diamond Brand Linseed Oilcake Meal, and Soybean Oil Meal.

Check Our Service on

CORONET DEFLUORINATED AND DICALCIUM PHOSPHATE

CDP

PLUS your other needs

Toronto Elevators Ltd. are merchants for a complete range of grains, with terminal elevators at Toronto and Sarnia.

We handle in volume MILLFEEDS, BREWERS GRAINS, BREWERS YEAST, FISHMEAL, CRUSHED OYSTER SHELLS, ALFALFA MEALS, SEED GRAINS and all other products to fill the needs of feed manufacturers and dealers.

Contact us at our offices in

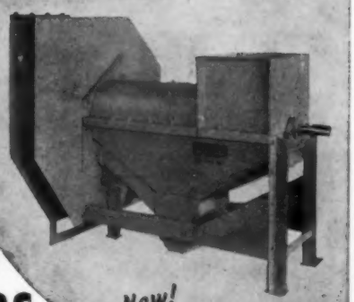
MONTREAL • TORONTO • WINNIPEG

TORONTO ELEVATORS LIMITED

MONTREAL • TORONTO • WINNIPEG

Want Faster Corn Shelling and Lower Cost Operation?

Specify TRIUMPH Zip COB BLOWING CORN SHELLERS



New! Triumph No. 500 CORN SHELLER

More Universally used by Feed Mills than any other make Sheller.

TRIUMPH ZIP Cob Blowing Corn Shellers are modern machines developed to simplify the shelling and cleaning of corn, and the handling of cobs, for Feed Mills. With TRIUMPH, faster shelling rates are possible, with less first cost and lower operating costs.

Although simple in design, they contain many exclusive features developed by TRIUMPH engineers. TRIUMPH Zip Cob Blowing Corn Shellers are easy to apply and to operate . . . but capable of handling any condition of ear corn brought to Feed Mills, efficiently and fast. Maintenance, breakdown, and chokings are reduced to a minimum assuring lowest cost operation.

Thousands of TRIUMPH Zip Cob Blowing Corn Shellers are in use in Feed Mills everywhere. Their popularity is soundly based on proven performance and results.

TRIUMPH Engineers and Distributors offer years of experience in handling ear corn and designing corn shelling systems . . . a plus value gained only through buying TRIUMPH.

No. 100
Ideal for Smaller Feed Mills
Simple, Dependable, Efficient
6 to 8 tons per hour.*

No. 150
Designed for use on Mobile Feed Mills or other portable uses
6 to 8 tons per hour.*

No. 300
Fast Shelling for Larger Mills at low first cost
13 to 18 tons per hour.*

No. 500
New Rugged Sheller for Heavy Shelling Requirements
18 to 22 tons per hour.*

*Shelling rate based on tons per hour of machine picked ear corn.

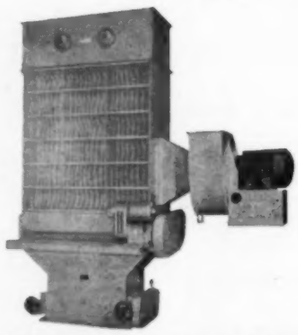
TRIUMPH CORN SHELLERS
THE C. O. BARTLETT & SNOW CO.
6249 HARVARD AVENUE • CLEVELAND 5, OHIO

GET FULL DETAILS. *Write for the catalog today.*

BUY and SELL through WANT ADS

ROSS—MILLING EQUIPMENT YOU CAN BANK ON

YOU'LL BE MONEY AHEAD EVERY DAY YOU OPERATE YOUR ROSS AUTO-COOLER



LOUVER STYLES FOR PELLETS

•

WIRE MESH FOR CRIMPED DRIVE

•

STANDARD DRIVE
VARI-SPEED FEEDER DRIVE

This automatic cooling equipment of Copperloy construction is built to answer your most exacting requirements, is available in special sizes for your individual needs. Highly efficient—it will provide the quality in your pellets or crimped products that customers demand, and give you trouble-free service that means you are money ahead every day the equipment is operated. Available complete with or without the Ross Crumbliser and Scalper. Send for complete details on the Ross Cooler line.

Complete Brochure on Request

RITE ROSS FOR RESULTS

ROSS MACHINE AND MILL SUPPLY, INC.
12 N. E. 28th St. Oklahoma City, Okla.

Use of Tranquilizers Helps Chickens Fight Effects of Hot Weather

SAN FRANCISCO — Tranquilizers not only soothe the ruffled poultryman, but they might have a similar effect on his chickens — especially during hot weather.

Researchers at the University of California have discovered that two tranquilizing drugs may help the birds survive high heat. The chemicals are reserpine and chloropromazine, but the full effect is not yet known. To see how effective the drugs would be in saving the birds, the poultry have been kept in special chambers wherein temperatures were raised as high as 113° F.

The drugs kept many birds alive, increased egg production over that of untreated birds and kept up the quality of egg production. Mortality figures showed that only 2.9% of the resperine-treated birds died, while 50% of the untreated in the control group died from heat.

The two drugs were said to have varied greatly in their effect on the chickens. The tranquilizers must be given in the feed or by a pill; injections with a needle proved ineffective. And the birds must be fed a comparatively heavy dosage of a tranquilizer to achieve maximum protection, the research showed.

Ralph Van Hoven Leaves for Japan

ST. PAUL — Ralph Van Hoven, of Van Hoven Co., Inc., St. Paul, left April 3 for Japan where he will represent the U.S. animal fat industry and the U.S. Department of Agriculture at the International Trade Fair in Osaka, Japan. He will return May 10.

The fair, which is to run from April 12-27, will have exhibits from 30 nations and 3,500 separate firms. Represented will be nations and firms which are engaged in commerce in that part of the world.

Mr. Van Hoven, vice president of the National Renderers Assn., will be in a booth containing an exhibit prepared by the U.S. Department of Agriculture with the help of suggestions from the fats industry. The USDA is also sponsoring exhibits of cotton, wheat, soybeans and tobacco.

Japan is one of the leading importers of U.S. animal fats, second only to Italy. The Japanese soap industry imports the raw material from the U.S. and the Argentine and processes the soap used by much of Asia, which is short of animal fats. Osaka, a city of 2.7 million, is Japan's principal commercial and industrial city.

The purpose of the USDA exhibits at the fair is to promote good will toward products from the U.S. and to expand the markets in Japan for U.S. goods.

Ohio Cooperative Buys Miller Alfalfa Plant

DEFIANCE, OHIO—The Farm Bureau Cooperative Assn., Inc., Columbus, has announced the purchase of the Miller Alfalfa Plant here, owned by Glenn L. Miller. The cooperative announced that it will continue to operate the plant on an expanded basis.

The new plant, in addition to two other plants now owned and operated by the cooperative, gives a production capacity of more than 12,000 tons annually.

Mr. Miller will continue to operate his plant located on his farm at Mark Center, Ohio.

Georgia Broiler Short Course Date Scheduled

ATHENS, GA. — Several questions of importance to Georgia broiler producers will be discussed at the annual Broiler Short Course & Chicken-of-Tomorrow Day to be held May 2 at the University of Georgia Center for Continuing Education at Athens.

Some of the subjects to be discussed are: Progress in broiler nutrition. What growth and feed efficiency can be expected from modern broiler rations? What was the cause of the disease that hit broilers several months ago? Is south Georgia going to take over the Georgia broiler industry? Where do the grower, feed dealer and processor fit into the new federal inspection program? What is the cheapest way to control coccidiosis? How is the poultry genetics laboratory to benefit the Georgia broiler industry? The poultry research center; what it is and how it is operated.

Persons interested can write to the poultry department at the University of Georgia. The program starts at 9:30 a.m. A registration fee of $1.20 will be charged.

Don Fisher

ADVERTISING ASSISTANT — The appointment of Don Fisher to the position of advertising assistant in the advertising and promotion department was announced recently by Central Soya Co., Ft. Wayne, Ind. A graduate of Iowa State College, Mr. Fisher served as farm management specialist on the extension staff of Iowa State, and later was associated with Kent Feeds as advertising manager. Mr. Fisher and his family will make their home in Ft. Wayne.

Is your office getting too few copies of FEEDSTUFFS?

MAIL THIS COUPON TODAY

FEEDSTUFFS
2501 Wayzata Blvd., P.O. Box 67
Minneapolis 1, Minn.

Please enter my subscription:

☐ CHECK ENCLOSED ☐ BILL ME

NAME .....

ADDRESS .....

CITY .....

STATE .....

Type of Business:

☐ FEED MANUFACTURER
☐ FEED DEALER
☐ OTHER .....

RATES: $4 a year, $7 for two years, in U.S., Possessions and Canada. Foreign: $3 a year additional.

Ohio Reports on Chick Disease Study

WOOSTER, OHIO — Veterinarians at the Ohio Agricultural Experiment Station reported recently on some research on the unidentified poultry disease condition which hit broiler flocks last fall in several areas.

The veterinarians said that they have been investigating the malady, alimentary toxemia. They described the symptoms and said that they somewhat resemble those found in salt poisoning, poisoning by some chemical and plant poisons or a deficiency of vitamin E. However, Dr. V. L. Sanger pointed out, none of these things has been shown to cause the disease.

"Recent evidence indicates that the disease may be associated with feeding certain batches of fat," he said. "Not all fats will cause the disease. Perhaps the ones that do have been changed in some manner so that they become toxic when fed to chickens."

Mice injected with fluids from sick birds stayed healthy.

J. K. Stern Advises Merging of Co-ops

STATE COLLEGE, N.M.—"The magic word in our economy today is 'merger,'" J. K. Stern, president of the American Institute of Cooperation, Washington, D.C., told 100 directors, managers, employees and members of New Mexico co-ops. He spoke at the third annual co-op short course at State College.

"Farmers," Mr. Stern said, "have organized many local cooperatives and serve themselves well. But until more of them work together in larger and more effective units—region-wide and perhaps nation-wide—as other segments of our economy do, they cannot claim their share of the consumer's dollar.

"Farmers sell their raw materials at low prices to processors and distributors who make a reasonable profit on them. But the farmers' hope for improving net farm income is for them to invest more of their dollars in processing and distributing facilities so that some of the margins in these operations can get back to them."

New Flax Released, Resists Rust, Wilt

WASHINGTON — A new rust and wilt-resistant flax variety adapted to north central states has been released jointly by the U.S. Department of Agriculture and the University of Minnesota, the USDA announces.

Named Arny after Prof. A. C. Arny, long-time agronomist and flax specialist at the University of Minnesota, the new flax is a cross of Crystal and Redson. It is immune to prevalent races of flax rust, has a factor for resistance to other known races of rust and is superior to other varieties in wilt resistance. It is also less susceptible to pasmo, a fungus disease of flax.

How your nearby Butler contractor can

cut your storage costs

with Butler steel tanks

These four Butler bolted steel tanks provide safe storage and easy handling of feeds and ingredients at the Boeke Feed Company, Inc., Des Moines, Iowa. The T. E. Ibberson Company erected the tanks.

Meet Earl Ibberson of the T. E. Ibberson Company, Minneapolis, Minnesota. He's typical of the Butler contractors all over the country who are local experts in building Butler steel tank storage facilities.

Your Butler contractor knows the special construction problems, infestation problems and weather conditions in your area—and how to solve them with weathertight, rodent-proof Butler steel tanks. He'll help you get all of the other benefits of Butler steel tanks, too—low initial cost, low insurance rates, minimum maintenance, excellent fire and weather protection, easy cleaning and fumigating. And, of course, Butler's speedy erection.

Butler bolted steel tanks are also widely used for bulk storage of feed and ingredients. Capacities range from 1,297 bushels to 123,364 bushels.

For complete handling of your storage problems by a man who can give you service that cuts costs, contact your nearby Butler contractor or write us direct.

BUTLER STEEL PRODUCTS

BUTLER MANUFACTURING COMPANY

Dept. 402, 1020 East 63rd Street, P. O. Box 7027, Kansas City 13, Missouri
902 Sixth Avenue S.E., Minneapolis 14, Minnesota
1012 Avenue W, Ensley, Birmingham 8, Alabama
Dept. 2, South 27th St. and Butler Ave., Richmond 1, California.

Manufacturers of Farm Equipment • Oil Equipment • Buildings • Dry Cleaners Equipment • Outdoor Advertising Equipment • Custom Fabrications
Factories at Kansas City, Mo. • Minneapolis, Minn. • Galesburg, Ill. • Richmond, Calif. • Birmingham, Ala. • Houston, Texas • Burlington, Ontario, Canada

NOW . . . BULK FEED HANDLING MADE EASY . . .

. . . with the Montana Grain & Feed Blower. Above photo shows (left) filler attachment for delivering pellets, cracked or whole grain into feeders or low bins. With dust collector attachment (right) blower is ideally adapted for handling ground feeds. Get full information today on how to get into bulk the low-cost, efficient "Montana way." A few dealerships still available.

TRUCK GRAIN BLOWER CO. 604 B STREET SCOBEY, MONT.

Liquid Urea-Molasses Tried in Sheep Tests

COLLEGE STATION, TEXAS — A urea-molasses liquid supplement which contains phosphoric acid, vitamin A active compound and trace minerals can be self-fed successfully in drylot to yearling, open, pregnant and lactating ewes with several types of low quality roughage, Texas A&M College reports.

Researchers W. T. Berry, Jr., Dr. H. O. Kunkel and Dr. T. D. Watkins, Jr., all of Texas A&M, used the mixture with several low-quality roughages of the type fed by sheepmen during extreme drouth, and then measured the resulting wool and lamb production.

They reported that under the variable feeding conditions in their test the ewes showed a variation in preference for the liquid supplement, but the average seemed to be reasonable and economical.

Their measure of wool production showed average fleece of 9.4 lb. This is considered excellent, they said, and the 8½-lb. fleece produced by ewes that lambed is above the Texas average.

The lamb crop over the 13-month feeding period was 52%. This should have been larger, they said, but the fact that yearling ewe lamb crops usually are smaller than those of mature ewes could account for the small lamb crop. An absence of stillborn lambs and lambing difficulties suggests that high levels of urea consumed over long periods of time had no adverse effect on reproduction, they said.

E. M. Furman J. H. Frautschy

PROMOTED—Murphy Products Co., Burlington, Wis., has announced the promotions of E. M. Furman and J. H. Frautschy. Mr. Furman, assistant sales manager, has been given additional responsibility in sales and personnel development. A marketing graduate of Northwestern University, he was formerly the firm's regional sales director for Wisconsin, Michigan, Minnesota and Missouri. Mr. Frautschy, formerly a Murphy research specialist, has become regional sales director in Wisconsin, Michigan, Minnesota and Missouri. He is an agriculture graduate of the University of Wisconsin and a former Wisconsin county agent.

Big Cattle Shipment

REDMOND, ORE. — A 54-carload shipment of cattle, 1,300 Hereford breeding cows and 31 bulls, arrived recently at the Hudspeth Land & Livestock Co. Prineville ranch, largest beef producing setup in the Pacific Northwest.

A ranch spokesman explained that the shipment boosts the ranch's total breeding herd to more than 12,000 head.

The animals were purchased from J. W. Ringsby, Rock River, Wyo. Although no price was revealed, it is understood the cows sold for about $220 a head.

It was one of the largest shipments of cattle to arrive in the Redmond area in recent years.

BUYS MOBILE MILL

CENTRAL CITY, IOWA—The S&P Farm Service, Central City, has a new Daffin mobile mill to be used for service to farmers of the community.

Any way you look at it . . .

there's MORE for you in the ULTRA LIFE PROGRAM

That's because the Ultra-Life Program is a complete program built to help you make top quality feeds and sell them. Expert technical assistance in all phases of formulating, manufacturing and selling your own brand name feeds.

You get exclusive sales programs that really help you market your products, poultry and livestock schools to train your employees in on-the-farm service.

You get highest quality fortification products, put together by pioneers in the field, backed by a quarter of a century of experience in manufacturing vitamin-trace mineral products for the feed trade.

You're on top of competition any season. That's why any way you look at it, there's more for you in the Ultra-Life Program.

Ultra-Life LABORATORIES, INC.

Main Office and Plant East St. Louis, Illinois

Get the full facts today—call, write or wire for full information without obligation.

One of the Country's Oldest and Largest Manufacturers of Vitamin and Trace-Mineral Products

EGGSHELL QUALITY

by the bag!

Poultrymen today realize that high quality eggs mean increased profits. And shell quality is an important factor. Wise dealers — like wise poultrymen — insist on EGGSHELL BRAND Oyster Shell.

EGGSHELL BRAND OYSTER SHELL

a product of

OYSTER SHELL CORPORATION

BALTIMORE, MARYLAND

DETERMINES MOISTURE—This instrument utilizes the magnetic properties of atoms to determine quickly and accurately amounts of moisture present in many materials. The nuclear magnetic resonance instrument is being presented to John Rettaliata (left), president of the Illinois Institute of Technology, by Robert G. Ruark, technical vice president of Corn Products Refining Co., New York. The company and members of the Corn Industries Research Foundation sponsored the basic work in developing the device at the Southwest Research Institute. The school recently received an unrestricted cash grant from Corn Products, which was based on the number of the college's alumni currently working for the company. More graduates of the school are employed by the firm than of any other privately endowed college.

King Milling Opens New Feed Laboratory

PITTSFIELD, ILL.—Farmers who use feed produced by the King Milling Co., Pittsfield, got a chance recently to see how the feed is tested by the company.

They were guests at an open house held by the firm to acquaint customers with its newly-completed feed testing laboratory and remodeled offices. Dick Synold, nutritionist for the firm, gave tours, showing how feed is analyzed and how the various tests are made.

Purina Votes Dividend

ST. LOUIS — The Ralston Purina Co. board of directors, meeting in St. Louis recently, voted a regular dividend of 25¢ per share of common stock payable on June 12, 1958, to shareholders of record May 22, 1958, according to an announcement of Donald Danforth, board chairman.

WORLDWIDE RESOURCES
FEED INGREDIENTS
JUST A PHONE'S THROW AWAY
ESTABLISHED 1879
Woodward & Dickerson INC.
1400 South Penn Square, Philadelphia 2, Pa., U.S.A.
Telephone: LOcust 4-5600
Cable Address: "Woodward" Teletype: PH 109

Vermont Study Shows Range Rearing Value

BURLINGTON, VT. — Research conducted at the Vermont Experiment Station recently indicates that considerable savings can be made by rearing layers on range. From 16 to 24 weeks a saving of over 14% in purchased feed was made between birds under restricted feeding on range and those in confinement, a station study shows.

Body weight of the two groups was essentially the same at maturity in spite of the lower grain consumption of the range birds.

Plots of about one quarter-acre size have been seeded to various species of forage. One range shelter is used on each plot in which 125 12-week old pullets are started about June 1.

Last season, bluegrass, orchard grass, brome grass and ladino clover were compared among themselves and with a confined control flock. To insure that birds on range would make use of the forage available, the grain feeding was reduced to 90% of the control level.

Don Henderson, University of Vermont, says, "There's nothing to indicate that any one of the grasses tested is the variety of choice. The weight at maturity was the same. Range-reared birds are generally laying at a better rate and are producing an egg of better shape and shell quality than their confinement reared sisters."

Grass Juice Tested For Dairy Calf Feed

MANHATTAN, KANSAS — Grass juice may have an important place in dairy calf rations of the future, according to Kansas State College reports.

In a 16-week feeding experiment either four or 12 grams of grass juice per 100 lb. of body weight of calves resulted in about the same growth as feeding 45 mg. of Aureomycin per calf daily.

Calves getting either grass juice or Aureomycin grew faster than those getting neither. However, calves getting both grass juice and Aureomycin gained less than control calves after about eight weeks.

Calves receiving 36 grams of grass juice per 100 lb. of body weight, plus 25 grams of Aureomycin daily gained more up to eight weeks of age than calves in any of the other groups tested.

After eight weeks of age, calves getting both Aureomycin and grass juice gained less than those fed either grass juice or Aureomycin alone.

In the tests, described in Dairy Digest, a publication of the University of Massachusetts, calves that grew fastest used the least total digestible nutrients and the least digestible proteins per pound of gain.

The grass juice used was water-soluble fractions of fresh green forage crops. Capsules containing the juice were administered from birth to 16 weeks.

MANAGER NAMED

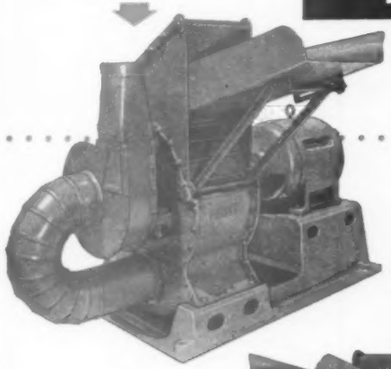
PETERSON, IOWA — Chris Reed, Peterson, has become manager of the Sanborn Cooperative Grain Co. to succeed Gene Black, who has taken a similar position at George, Iowa.

VAN DUSEN HARRINGTON
DIVISION
F. H. Peavey & Co.
GRAIN SOYA BEANS FLAX
Founded 1852
MINNEAPOLIS Pv DULUTH

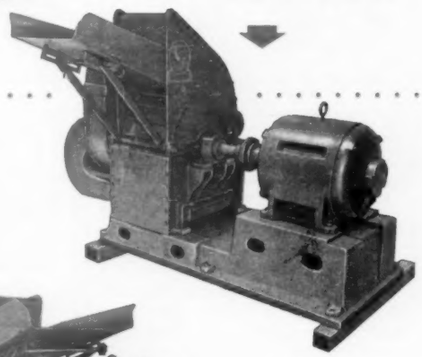
Whatever the job, there's a JAY BEE Hammermill for it

JAY BEE

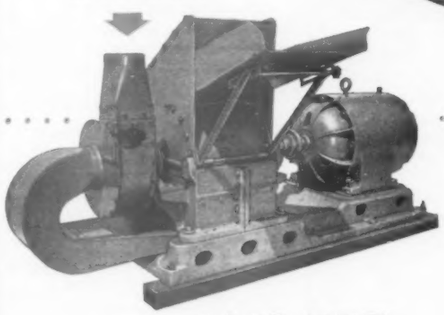
For custom grinding...
Model UX
2 Sizes—25 to 60 H.P.



For all-around general use...
Model SW
3 sizes—20 to 100 H.P.



For heavy grinding...
Model W
3 sizes—
50 to 100 H.P.



JAY BEE...
the HAMMERMILLS with
"Texture Grind"

JAY BEE Hammermills are guaranteed to outgrind and outlast all other makes, conditions being equal. Horsepower for horsepower, screen for screen, they will produce a finer, more even texture of grind than any other mill made. **Complete information is yours for the asking—mail this coupon now!**

J. B. SEDBERRY, Inc., Franklin, Tennessee

J. B. SEDBERRY, Inc., Dept. F., Franklin, Tenn.
Please send me complete information about the Jay Bee mill(s) checked below:
☐ Model UX ☐ Model SW ☐ Model W ☐ The "Super-matic" Model SM
Name .....
Company .....
Street or Box .....
City ..... Zone ..... State .....

☆ Classified Ads ☆

Classified advertisements received by Tuesday each week will be inserted for the issue of the following Saturday. Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Display advertising accepted for insertion at minimum rate of $10.50 per column inch. All Want Ads cash with order.

HELP WANTED

WANTED POULTRY NUTRITIONIST, must have at least major. Wonderful opportunity. Loret Mills, Chattanooga 8, Tenn.

EXCELLENT SIDE-LINE OR FULL TIME item for salesman selling to feed, grain, farm equipment dealers and farmers. Liberal commissions. Replies will be held confidential. Write Doane Agricultural Service, Inc., St. Louis 8, Mo.

PROCUREMENT MANAGER

Have immediate opening for procurement manager of large processing plant. Must have technical education, thorough knowledge of poultry industry, and experience in all phases of broiler growing. All replies will be treated strictly confidential. Send resume. Address Ad No. 3653, Feedstuffs, Minneapolis 40, Minn.

SALESMAN WANTED

I am looking for a representative presently calling on feed dealers and elevators to carry a well established calf milk replacer. Distributed nationally and backed by national advertising. Will add $300 to $500 per month income for good, energetic man. A few choice territories open.

Give complete details. Write P. O. Box 5020, Minneapolis, Minn.

PLANT MANAGER

By progressive livestock feed supplement manufacturer located in central Iowa. We want a man who can take complete charge of all of our manufacturing operations. We have modern plant, also small fertilizer plant in addition. We will pay top wages to right man as soon as he proves himself. This is a permanent job with definite future, so give full details on your past experience in writing. Will not consider any inexperienced man. Address Ad No. 3675, Minneapolis 40, Minn., for personal interview.

FEED SUPPLEMENTS SALES

Borden Company's Feed Supplements Department has excellent opportunity for technical sales representative. Practical experience and degrees in animal or poultry science necessary. Must be qualified to offer formula assistance. Protected territory. Salary plus commission plus expenses. Liberal benefits program. Reply in full to Feed Supplements Department, The Borden Company, 350 Madison Ave., New York 17, N.Y.

ASSISTANT SALES MANAGER

Position with prominent feed manufacturer. Less than 100 miles from Harrisburg, Pa. Leads to sales manager and top management in several years. Must have successfully managed at least 10 salesmen, be a successful feed salesman himself, not over 45, an agricultural college graduate or equivalent. Submit complete resume and past earnings in first reply to advertiser. Address Ad No. 3664, Feedstuffs, Minneapolis 1, Minn.

TECHNICAL SALES SERVICE FORMULA FEEDS

Do you have the knack of applying technical information from the research laboratory to the problems of farmers or feeders? Is this ability backed up by at least three years' experience in technical service or sales of formula feeds? If the answer is "Yes," Archer-Daniels-Midland Company has a place for you in its rapidly expanding Formula Feed Division. You must be sales-minded, willing to travel and able to put your ideas in words and writing. Salary and age open. We invite you to submit a resume of your qualifications for prompt and confidential consideration. Employment Manager, Archer-Daniels-Midland Company, 700 Investors Building, Minneapolis, Minn.

HELP WANTED

OPENING FOR EXPERIENCED FEED mill superintendent, central California, urban location. Address Ad No. 3674, Feedstuffs, Minneapolis 40, Minn.

SUPERINTENDENT FOR GOOD FEED mill in west Texas. Mill capacity 15 to 18 tons per hour. Applicant must be experienced in formula feed production, of good habits and able to get along with crew and co-workers. Address Ad No. 3681, Feedstuffs, Minneapolis 40, Minn.

MECHANICAL ENGINEER FOR LAYOUT and design of grain, feed and corn cob handling and processing equipment. An opportunity for a permanent position with a modern grain concern with a national reputation. Salary depending on experience. Write The Andersons, Maumee, Ohio, or call Tom Anderson, Maumee 3-6551.

DISTRICT MANAGER WANTED—LARGE national vitamin company needs experienced man to represent them in Arkansas, Mississippi, Alabama, Tennessee. Background in nutrition desirable. Must be now living and working in the territory. Address Ad No. 3673, Feedstuffs, 141 W. Jackson Blvd., Chicago 4, Ill.

NUTRITIONIST — WITH FARM BACKground and Ph.D. in some phase of livestock production or biochemistry primarily for swine nutrition research. Midwest location with feed manufacturers with nationwide distribution. Excellent opportunity for young man with initiative and ability. Salary open, position available immediately. Address Ad No. 3614, Feedstuffs, Minneapolis 40, Minn.

MACHINERY FOR SALE

WHIRLAWAY AIRBLAST CAR LOADERS, cast iron pulleys, new and used feed and elevator equipment. Hagan Mill Machinery, P. O. Box 574, Jefferson City, Mo.

FOR SALE—ENCLOSED MOTORS; RICHardson Scales; truck scales; hammermills; oat crimpers; horizontal and upright feed mixers; sewing machines; elevator legs; screw conveyors; molasses mixers and pellet mills. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

FEED MIXER, 1-TON CAPACITY, GUARanteed first-class throughout, 5 H.P. motor drive. Address Ad No. 3479, Feedstuffs, Minneapolis 40, Minn.

Steel Storage for Grain

Large capacity steel tanks completely erected and ready to receive grain. Includes aeration and auger, 19c per bu.

COLEMAN, INC.

NORTHWOOD Phone 519 IOWA

FIVE BARGAINS

Used Feed Mill Equipment

1—100 H.P. Jay Bee Hammer Mill complete with motor, starter, controls, two (2) ground grain bins (steel) 24,000-lb. capacity, each with Cyclone. Good condition $3,250.00

2—Two No. 2A Eureka Cereal Cutters with motors, extra cutting knives. Fair condition. Each... 550.00

3—Four Buffalo Molasses Meters. Good condition. Each 85.00
Two Buffalo Meters, calibrated for fats (like new). Good condition. Each 125.00

4—Richardson Automatic Scale, 100 lb. weighings. Fair condition .. 350.00

5—Four Wenger Metering Pumps with gear head motors, direct connected on base (for fats). Good condition. Each 485.00

UNCLE JOHNNY MILLS

P.O. Box 236, Phone FAirfax 3-3181

HOUSTON, TEXAS

MACHINERY FOR SALE

CHAMPION MOBILE GRINDER AND MIXer units. Champion Portable Mill Co., 2105 Como Ave., Minneapolis 14, Minn.

RICHARDSON 6-BUSHEL GRAIN SCALE. $435. Address Ad No. 3658, Feedstuffs, Minneapolis 40, Minn.

LATE 1955 DAFFIN MOUNTED ON 6400 Chev. A-1 condition. Address Ad No. 3683, Feedstuffs, Minneapolis 40, Minn.

PNEUMATIC "AIR-CONVEYOR" SYSTEMS —Positive pressure, Sutorbilt, new or used, any size, capacity, distance or product. Nolder Co., Box 14, Corona Del Mar, Cal.

24-TON MOLASSES TANK, STEEL LEGS. In very good condition. With 4-inch valve. Robert A. Ross, 809 Clay St., Watertown, Wis.

GOOD GRAIN, FEED, SEED, CHEMICAL machinery. Motors, scales, gearheads. Commercial Machinery Co., 535 Minnesota St., San Francisco 7, Cal.

MIXERS, HAMMERMILLS, TANKS, ELEvators, rolls, scales, cleaners, gearheads, etc. Commercial Machinery Co., 535 Minnesota St., San Francisco 7, Cal.

FIELD QUEEN CHOPPER, 7' CUT, GASOline motor, completely reconditioned, ready to go, $4,000. Northern Colorado Alfalfa Milling Co., LaSalle, Colo.

ROLLER MILL — ALLIS CHALMERS Style N Roller Mill 9"x30", two pair high with four spare rolls. Used on soybeans. Best Equipment Co., 1737 W. Howard St., Chicago 26, Ill.

USED TRIANGLE ELECTRIC CARTON closing machine, adjustable for 1-lb. and 5-lb. cartons (grass seed, etc.), complete with glue applicators—only $350, f.o.b. Spring Valley, N. Y. Valley Feed & Supply Co.

MODEL L KELLY DUPLEX MILL—GOOD condition. Serial No. 32491. Has double roll crusher, dust collector, pipe, magnet, with "V" drive on mill. In operation now. Can make prompt delivery. Priced right. Write or phone Griggs Elevator Co., Basil, Ohio.

FACTORY RECONDITIONED STEINLITE grain tester; 4AC Prater Hammermill, used very little; Bryant Corn Cutter and Grader, reconditioned like new. These items priced to go now. Allied Mill Equipment Co., 700 E. Kalamazoo St., Lansing, Mich.

SPIRAL RIBBON MIXERS 336, 100, 75, 15 cu. ft.; Worthington Batch Blenders 1 ton, 2 ton; Beaird Dryers 4'x30'; Rotary Dryers 4'6"x40', 6'x50'; Steam Tube Dryers 4'x30', 6'x45'. Dewatering Presses: Louisville 8-roll 36", Davenport 1A, 2A, 3A. Also attrition mill, conveyor, hammermills. Ferry, 1403 N. 6th St., Philadelphia 22, Pa.

FOR SALE—FOUR 9" U TROUGH SCREW conveyors, complete with covers; practically new; one 16 ft. long, two 12 ft. long, one 20 ft. long. One OK Bagging Scale (100) lbs. same as new. Three Draver Feeders same as new. One-ton size Munson Horizontal Mixer. Write or phone us at Rosewood Grain Co., Rosewood, Ohio.

MACHINERY WANTED

WANTED TO BUY—USED 1 OR 2 TON vertical mixer and 15 or 20 ton truck scale. Huron Mills, Inc., Huron, S. D.

ALL KINDS OF GOOD USED GRAIN processing machinery. E. H. Beer & Co., Inc., Baltimore 2, Md.

WANTED — 24-INCH HAMMERMILL, 75 or 100 horsepower, good condition. Starter, switch and drag. Price and description. R. F. Langford, Hartsville, Tenn.

WANTED TO BUY — RICHARDSON scales, bag closing machines and other good mill, feed and elevator equipment. J. E. Hagan Mill Machinery, Jefferson City, Mo.

MISCELLANEOUS

FOR SALE—BUILDINGS ON RAILROAD siding; presently occupied as seed warehousing and processing plant. Suitable for feed mill, elevator and other feed, seed or grain purposes. Elevated bulk bins, ample warehouse storage. Ohio location; U.S. highway adjacent. Reasonable. Address Ad No. 3648, Feedstuffs, Minneapolis 40, Minn.

SITUATIONS WANTED

FEED EXECUTIVE WITH PROVEN ABILity in material buying and all phases of grain transit seeks position with potential. Age 33. Address Ad No. 3684, Feedstuffs, 141 W. Jackson Blvd., Chicago 4, Ill.

NUTRITIONIST, SALES AND SERVICE manager for medium size Northeast feed manufacturer. College graduate, age 30, married, veteran. Presently employed with successful background. Address Ad No. 3671, Feedstuffs, Minneapolis 40, Minn.

SITUATIONS WANTED

FEED EXECUTIVE WITH SUCCESSFUL history in general management, production, procurement and sales, seeks administrative position with heavy responsibility. Proven ability. Address Ad No. 3627, Feedstuffs, Minneapolis 40, Minn.

MANAGER OR ASSISTANT FOR MEDIum size feed manufacturer. Experience in sales, service, production, purchasing, formulation. College graduate, age 30, veteran. Wish to locate in Northeast. Address Ad No. 3672, Feedstuffs, Minneapolis 40, Minn.

17 YEARS' EXPERIENCE IN FEED AND hatchery and poultry health products, self starter. Hard worker—38 years old, married, children, good character. Just sold own feed and hatchery business—will travel Alabama and southern states. Address Ad No. 3670, Feedstuffs, Minneapolis 40, Minn.

WELL ESTABLISHED INGREDIENT sales executive with excellent following East Coast; successful record promoting new products; farm management background; nutrition and animal husbandry degree from leading agricultural college, seeks connection with growing concern. Address Ad No. 3636, Feedstuffs, Suite 3214, 551 Fifth Ave., New York 17, N. Y.

BUSINESS OPPORTUNITIES

FOR LEASE — CONCRETE WAREHOUSE building 40x120. Nearly new. Three truck-height and two rail loading docks. Off-street loading and parking. Direct connections to 12 rail lines. Kansas City Stock Yards Co., Kansas City 2, Mo.

FOR SALE OR TAKE PARTNER—FEED business central Illinois, in heart of rich farming community, doing good volume. Unlimited opportunity, must sell account of poor health. Address Ad No. 3645, Feedstuffs, Minneapolis 40, Minn.

RICKERT RICE MILL PROPERTY IN New Orleans, La. Group of multiple-story heavy mill type brick buildings. Approx. 100,000 sq. ft. of space. Served by Public Belt and So. Pacific Railroads. Write Harold B. Walker, Latter & Blum, Inc., 919 Gravier St., New Orleans, La.

FEED MANUFACTURING AND RETAIL feed business. Complete grinding and mixing operations. Beacon Milling Co. feeds. Going business in southern Chester County, Pennsylvania, heart of big dairy area. Very reasonable. Fisher & Son Co., Malvern, Pa.

PROFITABLE SMALL FEED BUSINESS— Located in thriving Colorado university town. Excellently located to trackage and highway. Plenty of parking space. Low overhead. Plenty room for expansion. Selling own brand of feed and handle advertised line. Same owners over 12 years. Selling account of health. For details write P. O. Box 447, Fort Collins, Colo.

FOR SALE — FEED MANUFACTURING plant located in western Illinois. Ideally located on main line of C.B.&Q. with plenty of room for expansion. Three-story building, bulk receiving from railroad, big molasses capacity. Marion mixer and hard and soft pellet machines. Ideal setup for company wishing to expand into the heart of one of the nation's best feeding areas. Address Ad No. 3649, Feedstuffs, Minneapolis 40, Minn.

When you want to Buy or Sell
ELEVATORS or
FEED MILLS
See or Write Us Your Needs
We Have Some Good Ones in
OHIO-INDIANA-ILLINOIS
MID-WEST BUSINESS EXCHANGE
Halbert C. Smith Plymouth, Ind.

FOR SALE

COMPLETE FEED MILL IN TOMS RIVER, N.J. ALL MACHINERY INTACT, READY TO OPERATE.

Tidewater Machinery Co.
10 South 18th Street
Philadelphia 3, Pa.

OVERALL
OUTLOOK
on industry developments comes to you weekly . . . while it's still news in
FEEDSTUFFS

Researchers Report on Studies of Gossypol Toxicity, Bloat Control

CHAMPAIGN, ILL.—Studies of the influence of dehydration on the bloat-producing ability of alfalfa and of the responses of young calves to starters containing different kinds and amounts of cottonseed meals and different levels of free gossypol were reported in a recent issue of the Journal of Dairy Science, published by American Dairy Science Assn.

The bloat study, made by Dr. J. M. Boda, animal husbandman at the University of California, compares bloat-producing ability of alfalfa before and after commercial dehydration. The report of the study said it was demonstrated that dehydration greatly reduces the ability of alfalfa to cause bloat.

In the trial, fresh alfalfa was assayed for three consecutive days, following a four-day preliminary period, using eight bloat-susceptible cattle. Alfalfa collected from the same field the second day of the assay period was dehydrated for comparative trials later.

The fresh alfalfa was fed ad libitum for two-hour periods at 8 a.m. and 1 p.m. Consumption of each animal was measured and the degree of bloat was measured with a tympanometer. The same procedure was used for the dehydrated alfalfa with the exception that each cow's intake was limited on the basis of dry matter to the amount of fresh alfalfa consumed previously.

The average, maximal, intrarumen gas pressures were more than five times as great with the fresh alfalfa, the report said. Suggested as a partial explanation may be a denaturation of water-soluble plant protein, the report said.

Reporting on the use of cottonseed meals for young calves were B. F. Hollon, Dr. R. K. Waugh, Dr. G. H. Wise and F. H. Smith of North Carolina State College.

They used calf starters containing hydraulic-pressed cottonseed meal at levels of 40 and 60% in comparison with similar starters containing a special screw-pressed cottonseed meal. Concentrations of free gossypol in the starters were 0.107, 0.071, 0.035 and 0.023%, respectively.

Corresponding mortality rates among calves consuming the starters ad libitum were 100, 50, 75 and 0%. The report pointed out a positive correlation between free-gossypol intake by the calves up to 48 days and subsequent mortality.

Maximum safe intake of free gossypol during this period was approximately 140 milligrams per cwt. daily, the researchers reported.

Comparisons of calf starters containing 40 and 60% of degossypolized (0.029% free gossypol) cottonseed meal with starters containing corresponding levels of solvent-extracted soybean oil meal and with a starter having a blend, 40% of the former and 20% of the latter, revealed no significant difference in weight gains of calves during the 120-day period. Weight increases in these comparisons were similar to those from the starter containing the special screw-processed cottonseed meal.

The observations substantiate the prevalent view that young calves are highly sensitive to gossypol toxicity, the report said, but the free-gossypol content of the cottonseed meals produced by the improved processes was sufficiently low to permit the use of these meals as the primary source of protein in practical calf starters.

FORMULA FOR PROFITS

Almost FANTASTIC PROFITS are being made in grain rolling and mixing...

Example: $30.00 per hour with this Giant Krimper-Kracker®... and as much as $10.00 per hour with our little 10x10" mill. 15 sizes.

PRECISION MIXING FOR DRY AND LIQUID MOLASSES FEED MIXING

- 100 pound to 8000 pound sizes
- Portable or Stationary Mixers

TODAY you want to figure how much it costs you *not* to have this equipment rather than the price, which happily is most reasonable.

This sweeping change-over to dust-free rolled grains gives you a once-in-a-lifetime fortune making opportunity. Ask about our corn and cob Granulator too!

Come in and see our wonderful new factory; no finer production equipment anywhere.

DAVIS BUILT HCD SINCE 1894 WRITE FOR FREE CATALOG TODAY

H. C. DAVIS SONS MFG. CO.

P.O. Box FN185 Bonner Springs, Kansas

L. T. Wooddy, Feed Store Operator, Dies

CAVE JUNCTION, ORE.—Lauren Thomas Wooddy, 65, owner and operator of a feed and seed store in Cave Junction, died recently. He had been in ill health for several years.

Mr. Wooddy, a native of Washington, lived in Grants Pass and Albany, Ore., prior to opening a feed store in Cave Junction.

He had been active in livestock circles prior to going into the feed and seed business. He was, at one time, president of the Western Livestock Assn.

Survivors include his widow, two sons and three daughters.

Georgia Convention Program Takes Shape

ATHENS, GA.—Program plans for the annual convention of the Georgia Feed Assn. were reviewed at a recent meeting of the association board of directors.

The convention is scheduled for June 28-July 1 at the General Oglethorpe Hotel, Wilmington Island, Savannah, Ga.

Details of the program will be announced soon, according to Will Kinard, Heard-Kinard-Smith, Inc., Atlanta, Ga., secretary of the association. He said that attendance is expected to reach 300, and that most of the delegates expect to bring their families to Wilmington Island, a vacation resort.

FAMOUS AUTHOR — John Gunther (left) visits the agricultural research laboratories of Chas. Pfizer & Co., Inc., to gather material for his commentary, "Inside Pfizer," which appeared as a part of the company's 1957 annual report. Mr. Gunther has written "Inside U.S.A." and "Inside Europe" among other works on countries and continents. W. M. Reynolds, assistant director of the firm's research center at Terre Haute, Ind., explains the workings of the "mechanical cow," which duplicates the digestive function of the rumen.

Cuban Canadian Sugar Names New Executive

NEW YORK — The Cuban Canadian Sugar Co., Inc., New York, announces the appointment of A. Clayton Schofield to the office of executive vice president and manager of the firm's new offices at 551 5th Ave., Suite 612, in New York.

Cuban Canadian Sugar Co. is manufacturer of Shug-R-Feed.

HIGHER QUALITY HEAT TREATED HAMMERS

Hammers direct from manufacturer of years' experience. Send your specifications or worn hammer. Quantity discounts on hammers and screens. Ask for prices.

SOUTHWEST MILL SUPPLY CO.
P. O. Box 7455 N. Kansas City, Mo.

FREE INFORMATION

Dehydrated Corn Cob Meal has a place in your feed program! Paxco Dehydrated Corn Cob Meal, high in quality and most economical, is offered in a variety of grinds to suit your needs. Write for information, samples, prices.

PAXTON PROCESSING CO., INC.
P. O. Box 120 Phone 222 Paxton, Ill.

PIGEON FEEDS

Utility, Flying, Breeding, Conditioning

We specialize in custom mixing for distributors also

Canary Mixtures • Parakeet Feeds
Hamster Feed • Wild Bird Mixes

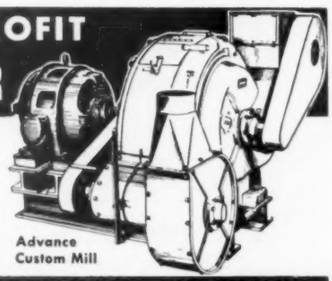
Ton Lots of Recleaned Milo, Canadian Peas, Millet, Flint Corn, Sunflower Seed, Hard Wheat, Rice

For details, write

The M.G.R. Feed Co., Inc.
P.O. Box 4006 Hammond, Ind.

You invest for PROFIT when you buy PRATER

Send for Proof-Positive Survey that reveals in black and white — backed by facts — that there's more Profit with Prater.



Advance Custom Mill

PRATER PULVERIZER CO. 1537 S. 55th Ct. Chicago 50, Ill.

BANISH

HEMORRHAGIC DISEASE IN POULTRY DUE TO NUTRITIONAL DEFICIENCY

MAKE YOUR FEEDS MORE EFFICIENT WITH
HETROGEN K®
Menadione Sodium Bisulfite
The effective water soluble VITAMIN K
• PURE, FREE FLOWING POWDER
• READY TO USE PREMIX
*U.S. Patents 2,331,608 & 2,367,302

WRITE FOR NEW VITAMIN K RESEARCH REPORTS AND HETROGEN K BROCHURE FOR COMPLETE DETAILS

HETEROCHEMICAL CORPORATION
111 E. HAWTHORNE AVENUE
Valley Stream, Long Island, N. Y.
LOcust 1-8223

USE HANDY COUPON:

Dept. FS-412

Please rush complete information on Hetrogen K and latest reports on Vitamin K research.

Firm Name.....
Individual.....
Address.....
.....

The Feed Man's Library

Reader Service Department

Feedstuffs

FEEDS AND FEEDING, 22nd Edition

By Frank B. Morrison and Associates

Feeds and Feeding has again been entirely revised, because of the many discoveries made in nutrition and livestock feeding. In this 22nd edition, particular emphasis is placed on the new developments. The numerous experiments are summarized which have dealt with antibiotic, arsonic and surfactant supplements, and with hormones, including stilbestrol. Full information is given concerning requirements of various classes of stock for the vitamins, including B and the unidentified factors. The Appendix Tables are enlarged by 40%, with composition and digestible nutrients of 1,100 feeds **$9.50**

ANIMAL NUTRITION, 4th Edition (1956)

By Leonard A. Maynard

It covers the standard, constantly-needed facts on feeding farm animals, and also the newly discovered facts about how certain acids, minerals, vitamins, etc., can help in raising healthier, more productive animals.
474 pages, 77 illustrations and tables **$7.50**

BEEF CATTLE, 4th Edition

By Roscoe R. Snapp

Covers breeding, feeds, feeding, economic trends, equipment, etc. Includes a report of hundreds of feeding experiments. Has a special chapter on sterility by Dr. Harry Hardenbrooks, Jr., assistant professor of veterinary medicine, University of Illinois. 641 pages **$6.50**

USE OF ANTIBIOTICS IN AGRICULTURE (1956)

Proceedings of the First National Conference

Held under the Auspices of the Agricultural Board and the Agricultural Research Institute, National Academy of Sciences, National Research Council, Oct. 19-21, 1955. Foreword by L. A. Maynard, chapters are sessions, presided over by C. F. Huffman, Damon Catron, H. D. Branion, J. G. Horsfall and W. W. Spink. A collection of scientific papers and panel discussions by leaders in the field **$2.50**

RAISING LIVESTOCK

By Walter H. Peters and G. P. Deyoe

This book provides the owner, manager or caretaker of farm or ranch with easily found, specific suggestions for solving problems confronted in producing, handling and managing livestock, including preparing for market, selecting, feeding, housing, breeding and marketing influences. It tells of the many jobs to be done and exactly how to do them. 519 pages, 240 illustrations..... **$6.85**

DAIRY CATTLE FEEDING and MANAGEMENT, 4th Edition

By H. O. Henderson and Paul M. Reaves

Based on the original work by Carl W. Larson and Fred S. Putney. Expanded 10%, the Fourth Edition adds new chapters on minerals and vitamins, and much recent material on hay-crop silage, grass land farming, dairy cattle health programs, and digestion in the rumen and milk secretion. Designed for use profitably by the student and the practicing dairyman. 614 pages..... **$6.50**

DAIRY CATTLE—Selection, Feeding and Management, 4th Edition (1955)

By W. W. Yapp and W. B. Nevens, Agricultural Experiment Station, University of Illinois

Part 1—Dairy Farming; Part 2—Selection and Breeding; Part 3—Feeding; Part 4—Managing; Part 5—Financial Aspects; Part 6—Milk Secretion; Care and Merchandising; Part 7—Producing Roughages; Part 8—Providing Good Buildings; Part 9—The Future of Dairying. A recognized text of great value to all engaged in dairying, especially to students..... **$4.75**

SWINE SCIENCE, 2nd Edition (1957)

By M. E. Ensminger, Ph.D., State College of Washington, Head Department of Animal Science

A complete yet easily understood reference for swine feeders, breeders and those in auxiliary services to them. Covers history and development of the industry, its distribution, adaptation and future; types and breeds, establishing the herd, meat type breeds, selection and judging, breeding, feeding, grains and high energy feeds, protein, vitamin and milling by-product feeds, pastures, buildings and equipment, health and disease prevention, marketing and slaughter, management and showing. 543 pages, 192 illustrations..... **$5.00**

SWINE FEEDING AND NUTRITION (1957)

By T. J. Cunha, Department of Animal Husbandry and Nutrition, University of Florida

A new text for feeders, teachers of animal husbandry and their classes, county agents, nutritionists and workers in veterinary pharmaceuticals. Dr. Cunha is head of the Department of Animal Husbandry, a member of the Nutrition Committee of the American Society of Animal Production and the Swine Nutrient Requirements Committee of the National Research Council. The book includes reports on the most recent scientific feeding studies on swine.
300 pages, 47 tables, 46 illustrations **$5.00**

SWINE PRODUCTION, 2nd Edition (1956)

By W. E. Carroll and J. L. Krider

A guide to organization, establishment, management, feeding and marketing operations in raising of hogs. 498 pages, 65 illustrations..... **$6.50**

RAISING SWINE—

By George P. Deyoe

A practical swine raiser's handbook. Stock selection, record keeping, feeding, care and handling, marketing techniques and preparing pork for home use. 447 pages, 201 illustrations, 40 tables **$6.25**

THE HANDBOOK OF FEEDSTUFFS (1957)

By Rudolph Seiden and W. H. Pfander

An encyclopedic presentation of production, formulation and medication. Designed to increase feed efficiency, explaining thousands of terms. Valuable to ranches and farms in production of feeds from right crops, utilization of plant as pasture, silage, hay, etc., and as an officially recognized feed product (meal, bran, grit, cake, etc.). Explanations and practical advice on medicated feeds, mineral feedstuffs, trace elements, growth stimulants and chemicals of importance to stockmen and poultry growers. Useful to feed manufacturers, nutritionists, students of animal biology, etc. 600 pages, 175 illustrations, cloth binding **$8.00**

THE STOCKMAN'S HANDBOOK (1956)

By M. E. Ensminger, M.S., M.A., Ph.D.

Intended for stockmen, those who counsel with stockmen and for teachers in animal agriculture. First 120 pages particularly of interest to feed trade, as breeding and feeding of livestock are covered. Other chapters have to do with judging, management, marketing, etc. The 1956 edition is the fourth printing, indicating strong demand for this guide. 596 pages, well illustrated, many tables. A practical handbook **$8.50**

MANAGING FOR GREATER RETURNS in Country Elevator and Retail Farm Supply Businesses

By Richard Phillips, Iowa State College economist

Written as a basic reference book for elevator and farm store managers, this book includes valuable information on over-all planning and management. Some of the topics included are planning for maximum business efficiency, use of an effective accounting system, increasing employee productivity, improving customer relations, improving purchasing, management of credit and operation of custom services. 500 pages **$7.00**

SCIENTIFIC FEEDING OF CHICKENS (1955)

By Dr. H. W. Titus

A small but absolutely authentic and concise treatment of vital information for feeders and feed manufacturers. 43 formulas for diets and mashes, vitamin content of over 60 feedstuffs; what feedstuffs are best, deficiency diseases; also relationship between feed consumption and egg production.
297 pages, hard binding **$4.00**

THE GRAIN TRADE: How It Works (1956)

By James S. Schonberg, Vice President, Uhlmann Grain Company

A comprehensive book on the mechanics of merchandising and trading in cash and grain futures in the U.S. and Canada. Tells of what happens to grain following its purchase from the farmer, how it is graded, stored and conditioned, the establishing of price even before the crop is planted, the role of the university professor in the grain trade. This authoritative book will become the leading reference book on this subject for farmers, county agents, legislators, foreign buyers, government personnel, teachers, etc. **$6.00**

FEEDING POULTRY, 2nd Edition

By Gustave F. Heuser, Professor, New York State College of Agriculture, and the School of Nutrition

Meets the needs of poultry producers, feed dealers and poultry students for the latest authoritative information on how to raise the best poultry by employing modern feeding methods. It evaluates findings on the value of feeds, types of feed to be used and nutritive economy. Deals with feeding and management for various purposes, chicks, breeders and egg producers. 632 pages.... **$7.95**

POULTRY NUTRITION, 4th Edition Revised and Enlarged

By W. Ray Ewing

1,500 pages, 133 illustrations, of practical, factual information for feed manufacturers, feed dealers, hatcherymen, breeders. New chapter on antibiotics, new growth charts, feed formulas for rapid growth..... **$12.50**

POULTRY HUSBANDRY, 3rd Edition

By Morley A. Jull

526 pages, 254 illustrations, covers all aspects of the poultry business, from planning and building poultry plant to preparing poultry products for market. Breeding techniques, feeding procedures, disease control, incubation; it is an "encyclopedia" of poultry raising..... **$6.50**

POULTRY PRODUCTION—

By Leslie E. Card, Ph.D.

Eighth Edition, 416 pages, 216 illustrations and four plates. Deals with broiler production, flock management and marketing, breeding and selection, nutrition, disease control, etc. **$5.00**

HATCHERY OPERATION AND MANAGEMENT

By Ernest F. Funk and M. Richard Irwin

New, 1955; a practical guide to hatchery operation for the experienced and inexperienced. Covers all phases of the business, including advertising, selling, office procedures, labor costs, equipment, chick selection, sexing, etc. 350 pages, well illustrated **$7.00**

SUCCESSFUL POULTRY MANAGEMENT, 2nd Edition

By Morley A. Jull

447 pages, 188 illustrations, based on practical experience, brings practical helps for choosing breeds, increasing broiler and egg production, building range shelters, estimating egg output, buying feed, candling eggs, etc. **$5.75**

KEEPING CHICKENS IN CAGES, 4th Edition (1956)

By Roland C. Hartman, Editor Pacific Poultryman and Dale F. King, Dept. of Poultry Husbandry, Alabama Polytechnic Institute

A thorough revision of this reliable work on cage laying plants. Newly illustrated and broadened in scope with addition of Professor Dale F. King as co-author. More about feeding-results of experiments with caged layers. The importance of protein and energy levels for the highly bred producing stock. 304 pages, 176 illustrations, cloth bound **$5.00**

TURKEY MANAGEMENT, 6th Edition (1955)

By Stanley J. Marsden and J. Holmes Martin

A text on turkey raising and marketing by Stanley J. Marsden, Poultry Husbandman at the U.S. Research Center, Beltsville, Md., and J. Holmes Martin, Head of the Poultry Department, Purdue University. Covers breeding, rearing, feeding, preparation for the market, shows, diseases and their prevention and control. 1,000 pages, 124 illustrations **$7.00**

THE FEED MIXERS HANDBOOK, 2nd Edition (1956)

By Ross M. Sherwood

A text for feed mixers with special reference to the nutritional aspects of feed formulation. A practical handbook for practical men.
208 pages, cloth bound **$3.00**

No C. O. D.'s

ORDER FROM

Reader Service Department
Feedstuffs
P.O. Box 67
Minneapolis 1, Minn.

SWINE GROWING

(Continued from page 8)

us towards a closer and tighter vertical relationship with respect to production, processing and distribution.

Dr. Krider said the over-all objective should be to produce more and better pork cuts to help pork regain its share of the consumers' meat dollars.

He said feed industry services to farmers make it desirable for the industry to view constructively the changes that will come with vertical integration. He said the feed industry recognizes that:

1. It is only a part of the over-all program.

2. It should, and can, lend business experience and special talents to the development of sound, profitable pork operations, and not just sell feed, even though this is important to the industry.

3. Most financing should be done by pork producers through local lending agencies. When the hog producer needs credit on a portion of his hog feeds, proper credit terms with local feed suppliers might need to be arranged on a sound short-term basis.

4. The feed industry can contribute specialized service and know-how, such as up-to-date feeding and management recommendations.

"In some cases, the feed industry might well find itself aligned in vertical integration with the pork producers bargaining with progressive packers to get realistic prices for U.S. No. 1 meat type hogs, preferably on a rail grade basis," Dr. Krider said.

Industry Position

"In the teamwork approach, since integration might also be referred to as collaboration or cooperation, the feed industry, based on my observations, would prefer to:

"1. Have the decision-making in the hands of those people who have substantial investments in the operation.

"2. Keep its capital investment at a minimum.

"3. Expand hog feed markets on a basis that the pork producer, the packer, the banker who invests in these operations and the feed man can operate profitably. In this we must realize that a larger, more efficient industry often means less profit per unit of product produced but a greater return on labor, equipment and capital invested.

"4. Offer large business experience plus specialized services and know-how.

"5 Help eliminate quickly unsatisfactory parts of integration programs, replacing them with more efficient ones.

"6. Keep the interests of its feed customers, the farmers, uppermost at all times, recognizing that a sound business venture must be good for all parties.

"7. Go slowly and learn soundly, basing future programs on successful experiences.

"There will be experiments with vertical integration in the pork industry and in some cases the feed industry will participate, or already is participating. Some experiments will take place in the hog belt; others will be outside. Some of these, the better planned ones, that serve an economic function and are fair to the participants will succeed and grow while others may fail."

In conlusion Dr. Krider stated that vertical integration does not make a small, inefficient farm business profitable. "Management remains a scarce resource. Whoever can supply this management most efficiently will retain or gain control," he said.

Packer Speaks

As a member of the meat packing industry, Mr. Smith said his firm had to find a way of obtaining a steady supply of meat type hogs to meet consumer demands.

"We were approached by a feed manufacturer who outlined a program upon which they had worked for several years. It was a program including nutrition, sanitation, breeding, good management and good facilities," he pointed out. "It envisioned feeding in confinement, on concrete and recommended multiple farrowing for the fullest use of feed lot facilities.

"They provided plans and specifications for the physical plant, engineering advice, a nutritional program and helpful scientific consultation. They offered a five-year contract so that financing, if needed, could be arranged with banks or other lending institutions. They agreed to temporarily extend credit for feed, which, I understand, is normal procedure in the feed industry."

Mr. Smith explained that his firm's part in the plan, covered by an entirely separate contract with the producer, is to take the hogs he produces under the plan, paying him a premium for his No. 1 meat type hogs, buying those that do not qualify at market prices.

"We offer to locate for him good breeding stock and meat type boars. He selects the breed or breeds he favors most."

Mr. Smith went on to say that the contract contains several escape clauses, that it is more accurately a mutual agreement and that it can and will be altered to meet changing conditions.

Doesn't See Over-Production

He also said he does not think that such programs will result in overproduction, at least for a good many years. He said that with probable population growth, "we will all be hard pressed to meet the demand if we produce the kind of pork the public wants."

The speaker said he thinks the terminal market will survive and probably expand in receipts. "These programs call for greater production of hogs. We will need more hogs when the pork produced by intelligent feeding and breeding practices is available to the consumer."

Mr. Smith also presented information showing that the quality of hogs slaughtered by his firm is improving.

The last point in Mr. Smith's talk dealt with whether contract programs would cost the producer his independence.

"In some ways it replaces the experience and intentions of the producer with scientific facts proven in practice by many of our agricultural schools," he said. "I don't consider that as a backward step.

"If he had no vote in the matter and were forced by some agency to adopt it, then I would agree he would have lost his independence. But this program is offered you in the same way a television program is offered—for your acceptance or rejection."

Integration Explained

Mr. Crouse made the point that if for no other reason than financial, unit control, "the essential element in vertical integration, is seldom practical through outright ownership of more than a small agribusiness unit."

(Another report dealing with Mr. Crouse's views on this topic appears on page 10.)

Mr. Crouse said that "a system of contracting and subcontracting not unlike that of the big assembly-line industries is beginning to play a very important part in agricultural product marketing. Regardless of the form in which the contracts appear, their function in the marketing system in the same. Farm producers, processors and distributors are working out arrangements designed to integrate the flow of agricultural products all the way from the farmer to the consumer."

"Our old auction type markets may some day be replaced by a new system of free competitive contracting that may bear striking resemblance to the present system of contracts and subcontracts in the assembly-line industries," he said.

Weekly Average Prices and Index Numbers

Compiled by U.S. Department of Agriculture—Base Period 1947-49=100
(All prices of feeds and grains in dollars per ton)

	5-year average 1951-55	April 1, 1958	April 8, 1958	Change from previous week	Per cent April 8 is of 5-year average
OILSEED MEALS—					
Prices at principal markets:					
Soybean meal	85.30	74.20	74.85	+ .65	88
Cottonseed meal	74.25	65.50	65.50	..	88
Linseed meal	73.35	61.75	62.25	+ .50	85
Copra cake or meal	73.00	55.50	55.25	— .25	76
Peanut meal	75.15	66.25	65.75	— .50	87
Index of weighted prices	99.9	86.9	87.4	+ .5	..
ANIMAL PROTEIN FEEDS—					
Prices at principal markets:					
Meat meal	94.60	107.00	106.60	— .40	113
Tankage	96.35	115.60	115.15	— .45	120
Fish meal	139.40	134.10	135.00	+ .90	97
Index of weighted prices	88.1	95.6	95.5	— .1	..
GRAIN HIGH-PROTEIN FEEDS—					
Prices at principal markets:					
Gluten feed and meal	63.05	58.15	58.15	..	92
Distillers dried grains	68.80	58.90	59.10	+ .20	86
Brewers dried grains	56.15	50.45	50.60	+ .15	90
Index of weighted prices	89.3	80.9	81.0	+ .1	..
WHEAT MILLFEEDS—					
Prices at principal markets:					
Bran	53.40	46.20	45.70	— .50	86
Middlings and shorts	56.45	46.50	46.40	— .10	82
Index of weighted prices	90.4	76.4	75.9	— .5	..
OTHER MILLFEEDS—					
Prices at principal markets:					
Hominy feed	61.15	48.45	49.45	+1.00	81
Rice bran	39.30	32.00	32.00	..	81
Index of weighted prices	84.5	67.2	68.4	+1.2	..
ALFALFA MEAL—					
Prices at principal markets	59.75	50.60	50.25	— .35	84
Index of weighted prices	105.8	89.6	88.9	— .7	..
MOLASSES FEEDING—					
Prices at principal markets	27.85	28.40	28.62	+ .22	103
Index of weighted prices	82.9	84.5	85.2	+ .7	..
ALL FEEDSTUFFS—					
Index of weighted prices	94.0	84.1	84.3	+ .2	..
FEED GRAINS—					
Prices at principal markets:					
Corn	55.00	39.90	42.00	+2.10	76
Oats	51.90	44.40	44.20	— .20	85
Barley	52.50	42.30	42.80	+ .50	82
Grain sorghums	53.60	43.10	44.20	+1.10	82
Index of weighted prices	87.7	65.7	68.4	+2.7	..

TRUCKS

(Continued from page 1)

ent for use of for-hire vehicles when grain commodities are purchased at the farm or country station point for shipment to an elevator or terminal where the farm producer no longer has actual possession or control of the commodity. Such movement would not be exempt under the agricultural exemption provision and would be subject to ICC tariff controls.

How extensively this amendment would affect truck grain shipments cannot be accurately measured, but it is well known that the truck shipment of grain has become an increasingly large part of the total movement.

This item of legislation sponsored by ICC is but one part of a general revision of transportation regulations.

Private Trucks

Not only has ICC been critical of the agricultural exemption, but it also charges that private trucks likewise by-pass ICC rate regulation through what it calls "illegal" carriage through the use of bills of sale and invoices making it appear that the truck carrier owner is actually the owner of the property.

ICC officials say that the bill of sale or invoice is little more than a subterfuge to short-circuit ICC rate controls, and it has a further improper feature in that such truck movement is exempt from the transportation excise tax on freight, thereby making such private truck movement highly discriminatory.

Hearings on H.R. 5823 before the House subcommittee on interstate commerce will be held here April 23-25.

The ICC is not alone in its effort to amend this provision of its basic law, but is now being supported by many shippers who previously have supported the agricultural exemption for farm products.

Those shippers have found that it has resulted in abuses and has dislocated competitive conditions to their disadvantage.

Next in order for consideration by Congress will probably be another ICC-sponsored measure to bring some control over the private truck shippers.

Cuban Molasses Allocation Reported

WASHINGTON—The Cuban Sugar Stabilization Institute has allocated an additional 70 million gallons of blackstrap molasses from the 1958 crop for export to the U.S., unconfirmed trade reports indicate.

No contracts have yet been signed, according to the reports. Prices were said to be 12¢ gal., f.o.b. Cuban ports, basis 52% sugars, subject to availability.

A price of 12¢ gal. was also set on a contract by Puerto Rican producers, who contracted to sell 4.5 million gallons of 1958-crop blackstrap, 85 degrees Brix at 12¢ gal. gross, f.o.b. Puerto Rican port.

In the U.S., feeding cane molasses markets were firm during the past week. Prices at New Orleans were unchanged to ½¢ gal. higher. A similar price change occurred in the Florida-Georgia area and advances of ½¢ gal. were reported at Texas ports. Midwest feed mixing centers reported prices unchanged to ½¢ gal. higher.

Demand remained slow to moderate with buying for immediate needs in most instances. A few future contracts were reported mostly through July at undetermined prices.

Cyanamid Merges Agricultural Divisions

NEW YORK—American Cyanamid Co., New York, has merged its Farm and Home and Phosphates and Nitrogen Divisions, it was announced by W. G. Malcolm, president. The merger was effective April 1.

Frank S. Washburn was named general manager of the new organization, which is called the Agricultural Division. Prior to the organization change, Mr. Washburn was general manager of the Phosphates and Nitrogen Division.

C. D. Siverd, who managed the Farm and Home Division, was appointed assistant general manager of the newly-formed operation.

Mr. Washburn said that the merger was effected to streamline and more efficiently coordinate the firm's expanding activities in the agricultural field.

THE FEED MARKETS

★ ★ ★ ★

Demand — Supply — Trends — Prices

Quotations on feed ingredients shown in these and adjoining columns are wholesale prices, per ton, bagged, for prompt delivery, unless otherwise noted. They are the latest quotations available from Feedstuffs correspondents and are not necessarily those in effect on date of publication. The prices represent fair average trading values and do not necessarily represent extreme low or high levels at which individual sales might have occurred. A descriptive summary of supply and demand factors prevalent in the feed market appears on page 2.

A AND D FEEDING OIL

Chicago: Demand fair; supply adequate; straight A feeding oil with 10,000 units vitamin A per gram 7⅞@8⅛¢ a million units of vitamin A, l.c.l., packed in 55 gal. drums, f.o.b. Chicago, drums included.

New York: Trend steady; price per lb. in 55-gal. drums (413 to 240 lb.): 300 ICU, 750 A 13½@15½¢, 1,500 A 15⅛@17¢, 2,250 A 17⅛@20¢, 3,000 A 19⅛@21¢; 600 ICU, 1,500 A 16@18¢, 2,250 A 18@19½¢, 3,000 A 20@21¢; f.o.b. Massachusetts, New York or Pennsylvania.

Boston: Demand light; supply good; 600 D, 1,500 A 18¢ lb.; 300 D, 2,250 A 18½¢; 300 D, 1,500 A 17¢; 300 D, 750 A 15½¢.

Minneapolis: 10,000 A 35¢ lb.; 300 D, 2,250 A 21½¢ lb.; 300 D, 1,500 A 20½¢ lb.; 300 D, 75 A 18½¢ lb.

Seattle: Demand slow; trend steady; supply good; 300 D, 2,250 A 22¢ lb., 300 D, 1,500 A 19¢ lb., 300 D, 750 A 17¢ lb., all ex-warehouse, drums included.

Denver: Demand fair; trend unchanged; supply ample; 2,250 A, 300 D 22½¢ lb.

ALFALFA MEAL

Buffalo: Demand and supply fair; trend steady; $62, sacked, Boston.

Chicago: Demand slow; supply adequate; 17% dehydrated, with 100,000 units vitamin A guaranteed $47@47.50; 17% with no A guaranteed $43@43.50.

Boston: Demand steady; supply adequate; dehydrated, 17% $62; suncured, 13% $48.50, nominal.

St. Louis: Demand slow; trend steady; supply ample; 13% fine suncured $40; dehydrated, 17%, 100,000 units vitamin A $47.

New Orleans: Demand fair; trend steady; supply adequate; 17% dehydrated, vitamin A guaranteed $55@55.50; pellets, bulk $50@50.50.

Ft. Worth: Demand increased; supply adequate on dehydrated, light on suncured; Kansas dehydrated, 17%, 100,000 A $47 by truck, $53 by rail; suncured No. 1 13% protein, ¼-in. grind, truck $38.

Cincinnati: Demand fair; trend steady; supply adequate; 17% dehydrated, 100,000 vitamin A $54.20@60.20.

Portland: Demand slow; supply ample; trend unchanged; suncured $38.50; dehydrated $51, f.o.b. California.

Philadelphia: Demand slow; supply light; 17% dehydrated $62.

Minneapolis: Softer prices; improved demand; ample supplies; 17% alfalfa meal reground pellets $47.75, bulk $44.25; granules and oil treated, bulk $46.25.

Kansas City: Demand good; trend steady; supply tight on good material in some areas but adequate for the most part; dehydrated alfalfa meal with 17% protein and 100,000 units vitamin A guaranteed on arrival $42.50@45, sacked; meal with 18% protein and 125,000 units A $48; 17% protein and 100,000 A pellets $38@39, bulk; non-guaranteed A meal $37@40; suncured meal demand is dull and supplies are not easy to secure because of wet fields, making delivery delays in many cases, No. 1 fine ground 13% protein $34.50, 15% protein $37.50, No. 1 ¾-in. $33.50, No. 2 ¾-in. $29.50.

Omaha: Steady trend; fair to good demand; adequate supplies; 17% 100,000 units vitamin A, bulk pellets $39; sacked meal $44; non A guaranteed, papers or burlaps $38, Omaha.

Seattle: Demand slow; trend steady; supply good; 15% protein suncured $40, delivered, carlots; 136,000 A unit dehydrated $67, delivered, carlots.

Denver: Demand fair; trend steady; supply ample; 100,000 A, 17% $43.

Los Angeles: Demand slow; trend steady; supply ample; dehydrated pellet meal, 17% protein, 100,000 A $48@49; dehydrated meal, 17% protein, 100,000 A $46; suncured crumbles, 15% protein $45@46; suncured meal, 15% protein $43@44.

Memphis: Demand fair; trend lower; supply ample; dehydrated, 17% protein, guaranteed 100,000 units vitamin A $48.

ANIMAL FATS (STABILIZED)

Ft. Worth: Demand good; supply light; prime tallow, tank cars 8⅝¢ lb.; drums 10⅛¢ lb., f.o.b. north Texas packing plants with returnable drums.

Louisville: Demand good; trend steady; bleachable fancy 8¼¢ lb.; white tallow 8¼¢ lb.; yellow grease 6¾¢ lb.

New Orleans: Demand fair; trend steady; supply adequate; bleachable 8¼@8½¢ lb.

Kansas City: Demand good; trend steady; supply tight, with some all sold up for next few weeks; bleachable fancy tallow 8½¢ lb. tank car.

St. Paul: Firmer undertone; demand strong; supply still tight; bleachable fancy tallow 7⅞¢ lb., f.o.b. producers' plants.

Chicago: Demand fair; supply short; bleachable fancy tallow, tank truck or carlots 7¾@7⅞¢ lb.; yellow grease 7@7⅛¢ lb.

BARLEY FEED

Boston: Demand slow; supply light; $45.

Ogden: Supply normal; rolled $41@45; whole barley $34@39.

Portland: Demand slow; supply ample; trend unchanged; rolled $58, ground $56.

Philadelphia: Demand slow; supply fair; pulverized $44.75.

Baltimore: Demand fair; supply adequate; $45.40.

Chicago: Demand fair; supply light; $35.

New Orleans: Demand slow; trend steady; supply light; ground $66@67.

Milwaukee: Demand good; supply fair; needles $7@$1.10; ground $26, sacked, Milwaukee.

Seattle: Demand fair; trend firmer; supply good; whole barley $57, ground barley $57, rolled barley $59, all ex-warehouse, l.c.l., sacked.

Los Angeles: Demand fair; trend firmer; supply ample; standard rolled $2.98 cwt., sacked; standard ground $2.98 cwt., sacked.

BENTONITE (SODIUM)

Chicago: Demand steady; supply adequate; f.o.b. Wyoming and South Dakota shipping points; granular 30 mesh $16.50; fine granular, 80 to 100 mesh $13.75; powder, 200 mesh $13.50; f.o.b. Belle Fourche, S.D., minimum 30-ton carlots; 80 granular $13.50 net; 200 mesh fine $13.25 net.

Cincinnati: Demand steady; supply adequate; f.o.b. Cincinnati, minimum 30-ton carlots; 80 granular $30.21; 200 mesh fine $29.96.

Denver: Demand fair; trend unchanged; supply ample; $13.50, 200 mesh, f.o.b. Wyoming and South Dakota Shipping points.

BLOOD FLOUR

Louisville: Demand good; trend steady; supply ample; $100@110.

BLOOD MEAL

Chicago: Demand slow; supply limited; $145@155, guaranteed 80% protein.

New Orleans: Demand good; trend steady; supply light; $105@110.

Louisville: Demand good; trend steady; supply ample; $100@110.

Ogden: Supply normal; $125 in 100-lb. bags, f.o.b. Ogden.

Portland: Demand good; supply limited; trend unchanged; $110.

Los Angeles: Demand good; trend steady; supply limited; $7.50 a unit of ammonia.

BONE MEAL (STEAMED)

Cincinnati: Demand and supply fair; trend stronger; $95, sacked, f.o.b. Cincinnati.

Louisville: Demand fair; trend steady; supply ample; $85@90.

Ft. Worth: Demand fair; supply adequate; $85, sacked, f.o.b. Ft. Worth, local manufacture.

Portland: Demand slow; supply ample; trend unchanged; $95.

Chicago: Demand fair; supply limited; $90@92.50.

Buffalo: Demand good; trend steady; supply ample; $90, sacked.

Boston: Demand and supply steady; $87.

New Orleans: Demand fair; trend steady; supply ample; $85@95.

Seattle: Demand and trend steady; supply good; $85, ex-dock, truck lots.

Los Angeles: Demand slow; trend steady; supply adequate; imported $66.50, in 20-ton lots.

Denver: Demand fair; trend unchanged; supply ample; $75, f.o.b. West Coast.

BREWERS DRIED GRAINS

Milwaukee: Demand good; supply fair; $46.50.

Philadelphia: Demand dull; supply light; $58.

Chicago: Demand fair; supply adequate; 26% $47.

Boston: Demand and supply steady; 26% $58; 22% $51.50.

New Orleans: Demand fair; trend easier; supply adequate; $56.50@57.80.

St. Louis: Demand slow; trend steady; supply adequate; $47.

Buffalo: Demand and supply fair; trend steady; $51, bulk, Boston.

Cincinnati: Demand poor; trend steady; supply adequate; $53.

Ft. Worth: Demand slow; supply moderate; 26% $50.15, delivered Ft. Worth.

Louisville: Demand fair; trend steady; supply good; $47.

Los Angeles: Demand and trend steady; supply limited; $49 bulk, $53 sacked.

BREWERS DRIED YEAST

Portland: Demand good; supply ample; trend unchanged; 8½¢ lb.

Louisville: Demand fair; trend steady; supply normal; 10@10½¢ lb.

Chicago: Demand good; supply limited; 10@11½¢ lb. in carlots; 10¼@12½¢ lb., l.c.l.

Buffalo: Demand good; trend steady; supply ample; $10.25 cwt.

Boston: Demand and supply steady; 11¢ lb., nominal.

Omaha: Market steady; demand light; 11½¢ lb.

Seattle: Demand slow; trend steady; supply ample; $12 cwt.

St. Louis: Demand good; supply limited; 10¢ lb. in carlots; 11¢ lb. in ton lots; 12¢ lb. in less than ton lots.

Cincinnati: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11⅛¢ lb.

Pittsburgh: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11⅛¢ lb.

New Orleans: Carlots 10¢ lb.; 5-ton lots 11¢ lb.; ton lots 11⅛¢ lb.

New York: Carlots 9½¢ lb.; 10-ton lots 10¢ lb.; 5-ton lots 10½¢ lb., ton lots 11¢ lb., f.o.b. New Jersey.

Milwaukee: Demand good; supply limited; 10½@11½¢ lb. in carlots; 10¾@12½¢ lb., l.c.l.

Los Angeles: Demand fair; trend steady; supply adequate; 10¢ lb. in 5-ton lots; 11¢ lb. in less than 5-ton lots.

Denver: Demand fair; trend unchanged; supply ample; $10 cwt.

BUTTERMILK-CONDENSED

Chicago: Demand slow; supply adequate; $3.25@3.50 cwt. in carlots.

Boston: Demand slow; supply light; 3½¢ lb.

New Orleans: Demand slow; trend steady to easier; supply light; $3.50@4 cwt.

Ogden: Supply normal; $4.40, 100-lb. drum.

Philadelphia: Demand dull; supply fair; $4.25 cwt.

Los Angeles: Demand slow; trend steady; supply adequate; 5¼¢ lb. in 100-lb. lots; 4¾¢ lb. in 500-lb. lots.

CALCITE CRYSTALS AND FLOUR

(All prices net, including freight and tax)

New York: Crystals $15.30, flour $10.30.

Buffalo: Crystals $16.16, flour $11.16.

Toledo: Crystals $18.06, flour $13.06.

Boston: Crystals $16.69, flour $11.69.

Limecrest, N.J.: Crystals $10.50, flour $5.50.

CALCIUM CARBONATE

Cincinnati: Demand fair; trend steady; supply adequate; $8@9 cwt.

Seattle: Demand and trend steady; supply good; $14, ex-warehouse, truck lots.

Chicago: Demand steady; supply adequate; fine grind, plain $9.76; bulk, in hopper cars $7.67; bulk in boxcars $8.17; granular grind $1 premium.

Minneapolis: Fine grind: 50-lb. bag $12.25, 100-lb. bag $11.50; bulk, box car $10; bulk, hopper $9.50; coarse grind $1 premium, delivered Minneapolis.

Los Angeles: Demand slow; trend steady; supply ample; $10.25.

CHARCOAL

Cincinnati: Demand good; trend steady; supply adequate; briquets $120, 25-lb. bags, f.o.b. warehouse, Cincinnati.

Chicago: Demand quiet; supply adequate; poultry charcoal $106 in 50-lb. multiwalls.

Boston: Demand and supply light; $95, nominal.

Los Angeles: Demand slow; trend steady; supply ample; hardwood poultry $156 sacked in less than ton lots, $144.50 sacked in ton lots.

COCONUT MEAL

Portland: Demand slow; supply ample; trend unchanged; $59.

Seattle: Demand and trend steady; supply ample; $62, ex-dock, truck lots.

Los Angeles: Demand slow; trend steady; supply ample; copra $57@58, spot, offshore, April.

COD LIVER OIL (FORTIFIED)

New York: Trend steady; price per lb. in 55-gal. drums (413 to 420 lb.): 300 ICU, 750 A 14½@15½¢, 1,500 A 16⅛@19¢, 2,250 A 18⅛@21¢, 3,000 A 21½@23¢; 600 ICU, 1,500 A 17⅛@19½¢, 2,250 A 20@22¢, 3,000 A 22@23¢; f.o.b. Massachusetts, New York or Pennsylvania.

Boston: Demand slow; supply good; 600 D, 2,250 A 21¢ lb.; 300 D, 2,250 A 20¢; 300 D, 1,500 A 17½¢.

CONDENSED FISH SOLUBLES

Boston: Demand good; supply short; 5¢ lb., nominal.

New York: Demand good; trend steady; supply fair; 5@5½¢ lb., f.o.b. eastern shore.

New Orleans: Demand fair; trend firm; supply light; 50% solids menhaden $100, f.o.b. Gulf.

Denver: Demand fair; trend steady; supply limited; $192.25, dried.

Los Angeles: Demand steady; trend unsteady; supply limited; 5¼@5½¢ lb.

CORN GLUTEN FEED AND MEAL

(All quotations for all cities are sacked basis, bulk basis $5 less)

Minneapolis: Feed $54.80, meal $84.80.
Atlanta: Feed $60.98, meal $90.98.
Birmingham: Feed $59.64, meal $89.64.
Boston: Feed $59.84, meal $89.84.
Chicago: Feed $48, meal $78.
Cleveland: Feed $56.14, meal $86.14.
Denver: Feed $58.51, meal $88.51.
Ft. Worth: Feed $56.96, meal $86.96.
Indianapolis: Feed $53.36, meal $83.36.
Kansas City: Feed $48, meal $78.
Louisville: Feed $55.21, meal $85.21.
New Orleans: Feed $58.20, meal $88.20.
New York: Feed $59.43, meal $89.43.
Norfolk: Feed $58.71, meal $88.71.
Philadelphia: Feed $59.02, meal $89.02.
Pittsburgh: Feed $56.96, meal $86.96.
St. Louis: Feed $48, meal $78.

CORN OIL MEAL

Louisville: Demand slow; trend steady; supply light; $57.68.

COTTONSEED OIL MEAL

Boston: Demand fair; supply light; $82.
Chicago: Demand slow; supply adequate; hydraulic $74.50@75; solvent $73.50@74.
Buffalo: Demand poor; trend steady; supply adequate; $81.75, sacked, Boston.
St. Louis: Demand slow; trend steady; supply limited; $66.
Cincinnati: Demand poor; trend steady; supply adequate; solvent $75; old process $76.
Ogden: Supply average; 41% $65@70.
Ft. Worth: Demand fair; supply sufficient; carlots, 41% old process $57@58 f.o.b. central Texas, $58 f.o.b. Ft. Worth area; solvent 41% low gossypol $56@57, delivered Ft. Worth; pellets $2 additional; cottonseed hulls $20, f.o.b. Ft. Worth.
Louisville: Demand fair; trend steady; supply normal; old process $72.50; new process $71.50.
Wichita: Demand slow; supply ample; 41% old process $67.
Portland: Demand good; supply ample; trend higher; truck $59, rail $69.50.
Philadelphia: Demand and supply fair; $83.50.
Kansas City: Demand moderate; trend steady; supply adequate; from Texas areas, limited at Memphis with prices considerably higher; old process meal shipped in from Texas $67, sacked, Kansas City; Texas solvent meal $62 sacked, $58 bulk, Kansas City.
Atlanta: Demand good; trend steady; supply limited; 41% $71, sacked, immediate.
Omaha: Demand light; 41% solvent $60 bulk, $64 sacked, delivered, Omaha basis.
Seattle: Demand fair; trend firmer; supply good; $63, delivered, truck lots, 41% expeller process.
Los Angeles: Demand better; trend firmer; supply smaller; local production, 40% protein $53@55.
Denver: Demand fair; trend steady; supply ample; 2% fat, 41% $61, rail.
Memphis: Demand and supply light; trend steady; prime 41% protein, old process $63, sacked; new process, 41% solvent $61.50, sacked.

CURACAO PHOSPHATE

New York: Trend steady; ground Curacao phosphate in 100-lb. bags $48 ton, f.o.b. cars or trucks, New Orleans, Jacksonville, Fla., or Philadelphia.

D ACTIVATED ANIMAL STEROL, POWDERED

New York: Trend steady; price per lb. in 50- and 100-lb. bags or 100-lb. drums: 1,500 ICU 8@12¢ bagged, 12@13¢ drums; 3,000 ICU 13@17¢ bagged, 17@18¢ drums; f.o.b. or delivered basis Pennsylvania, Delaware or New York.

Cincinnati: Demand fair; trend steady; supply ample; 1,500 ICU 11@12¢ lb.; 3,000 ICU 15¢ lb., warehouse.

Kansas City: Demand fair; trend steady; supply ample; 1,500 ICU 9½@10¢ lb.; 3,000 ICU 11½@12¢ lb., ton lots or larger.

D ACTIVATED PLANT STEROL POWDERED

Chicago: Demand good; supply moderate; 4,000,000 U.S.P. units per lb., 15¢ lb. in ton lots; less than ton lots 17¢ lb.; 12,000,000 units per lb., 5 tons to a carload 28¢ lb.; ton lots and less 30¢ lb.

DEFLUORINATED PHOSPHATE

Cincinnati: 18% phosphorus $81, sacked; 13% phosphorus $64.98, sacked, f.o.b. Cincinnati.

Tupelo, Miss.: Minimum phosphorus 13%, minimum calcium 31%, maximum fluorine .12%, $51 net ton, f.o.b. Tupelo in 100-lb. multiwall bags, $48 in bulk.

Wales, Tenn.: Minimum phosphorus 18%, minimum calcium 33%, maximum calcium 36%, maximum fluorine .18% $69.12 net ton, f.o.b. Wales, in 100-lb. multiwall bags, $3 less in bulk.

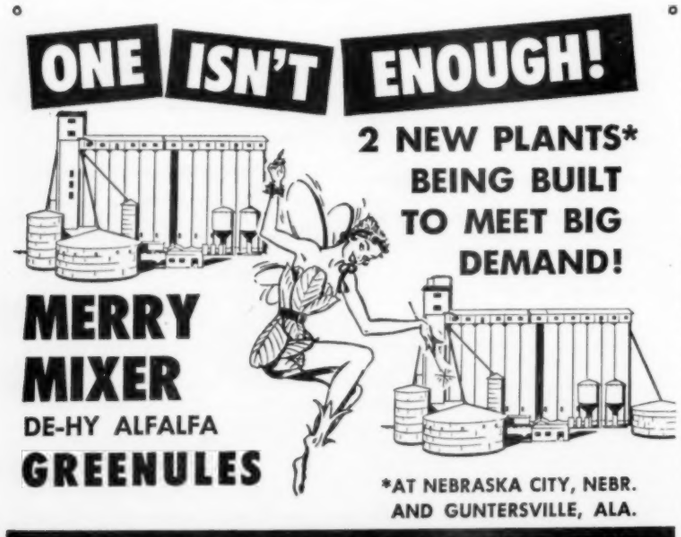
Houston: Minimum phosphorus 19%, minimum calcium 32%, maximum calcium 35%, maximum fluorine .19% $69.50 net ton, f.o.b. Houston, 100-lb. multiwall paper bags; $66.50 in bulk.

Coronet, Fla.: Minimum phosphorus 17%, minimum calcium 34%, maximum fluorine .17%, carload $60, truckload $60.75, net ton, f.o.b. Coronet in 100-lb. multiwall bags, $57 and $57.75 in bulk.

DICALCIUM PHOSPHATE

Cincinnati: 18½% phosphorus $92@93.

Portland: Demand slow; supply ample; trend unchanged; $115.


ONE ISN'T ENOUGH!
2 NEW PLANTS* BEING BUILT TO MEET BIG DEMAND!
MERRY MIXER
DE-HY ALFALFA
GREENULES
*AT NEBRASKA CITY, NEBR. AND GUNTERSVILLE, ALA.
CONSOLIDATED BLENDERS, INC.
FREMONT, NEBR., PHONE PARK 1-9000

Texas City, Texas: 18.5% minimum phosphorus, 25% minimum calcium, 28% maximum, 0.11% maximum fluorine, granular $77.70 net ton, f.o.b. Texas City in 100-lb. multiwall bags, bulk, boxcars and hoppers, $3 net ton less than bagged material.

Columbia, Tenn.: Minimum phosphorus 18½%, minimum 25% calcium, maximum .01% fluorine guaranteed $83.25, f.o.b. Columbia, in 100-lb. multiwall bags; freight equalized with nearest producing point, carload basis; bulk $3 ton less.

Chicago: Stock food grade, 18.5% phosphorus, 20,000 lb. or more $83.25 net ton in 100-lb. papers, basis Chicago Heights, Ill., or Nashville, Tenn.; less than 20,000 lb. $93.25; 21% phosphorus, 20,000 lb. or more, $94.50, basis Chicago Heights and Nashville; less than 20,000 lb. $104.50; bulk boxcars or hoppers $3 net ton less than bagged material.

Bonnie, Fla.: Minimum phosphorus 18½%, granular $83.25; freight equalized with closest producing point, carload basis.

Minneapolis: 18.5% phosphorus, 24% calcium granular or fine ground $94.10, delivered; $3 less in bulk.

Trenton, Mich.: Minimum phosphorus 18½%, maximum fluorine .03% guaranteed $83.25, f.o.b. Trenton in 100-lb. multiwalls; minimum phosphorus 21%, maximum fluorine .03% guaranteed $94.50, f.o.b. Trenton in 100-lb. multiwall bags.

Denver: Demand fair; trend unchanged; supply ample; 18.5% $77.70, f.o.b. Texas City.

DISTILLERS DRIED GRAINS

Buffalo: Demand good; trend steady to higher; supply poor; $62.50, bulk, Boston.

Boston: Demand active; supply spotty; domestic light $62@63, dark $63@64.

Cincinnati: Demand poor; trend steady; supply adequate; light $57.59, dark $58; by truck, dark $50.

Louisville: Demand good; trend steady; supply ample; bourbon grains: light $53, dark $54, solubles $77.

Philadelphia: Demand dull; supply light; $63.

Seattle: Demand fair; trend steady; supply ample; $63, delivered, truck lots.

DRIED BEET PULP

Ogden: Supply normal; $38@42.

Ft. Worth: Demand slow; supply sufficient; carlots, 50-lb papers $58.70, April, delivered Ft. Worth.

Cincinnati: Demand fair; trend steady; supply adequate; $55.

Portland: Demand good; supply ample; trend unchanged; $50.

Boston: Demand fair; supply short; $62.75.

Buffalo: Demand fair; trend higher; supply poor; $64.50, sacked, Boston.

Milwaukee: Demand good; supply fair; molasses $49.50, plain $52.

Atlanta: Demand slow; trend strong; supply ample; $68, sacked, immediate.

Seattle: Demand slow; trend steady; supply good; $43, delivered, carlots.

Los Angeles: Demand and trend steady; supply limited; molasses $45.50.

DRIED BUTTERMILK

Ogden: Supply normal; $7.25, 100-lb. bag.

Louisville: Demand slow; trend firm; supply normal; 10½@11¢ lb.

Wichita: Demand slow; supply sufficient; $8 cwt.

Buffalo: Demand excellent; trend firmer; supply limited; $11 cwt.

Chicago: Demand good; supply scarce; medium acid $9.50@9.75; sweet cream $9.50@9.75 cwt., in carlots.

Milwaukee: Demand and supply fair; $10 cwt.

Minneapolis: Very firm; good demand; tight supplies; $10 cwt.

Los Angeles: Demand slow; trend steady; supply adequate; 11¢ lb.

FEED INGREDIENTS
Fish Meal • Scrap • Solubles
Bigelow Sales Company
10 Bridge St. NEW YORK 4, N.Y.
Tel. HAnover 2-9195

DRIED CITRUS PULP

Buffalo: Demand and supply fair; trend steady; $44, sacked, f.o.b. Florida points.

Boston: Demand and supply fair; $44, f.o.b. Florida points.

Atlanta: Demand good; trend steady; supply limited; $54, immediate; meal $44, immediate.

Los Angeles: Orange pulp: $39 bulk, $44 sacked, nominal prices only; lemon pulp: $37 bulk, $42 sacked, good demand, limited offerings.

DRIED SKIM MILK

Chicago: Demand improved; supply tightening; $10.50 cwt. in carlots.

Buffalo: Demand good; trend steady; supply ample; spray $10.65 cwt.; roller $11.50 cwt.

Boston: Demand fair; supply tight; 12¢ lb. in carlots.

Milwaukee: Demand and supply fair; $11 cwt.

Ogden: Supply normal; $15.15, 100-lb. drum.

Philadelphia: Demand dull; supply fair; $12.50 cwt.

Cincinnati: Demand fair; trend steady; supply adequate; 10½@11¢ lb.

Louisville: Demand slow; trend steady; supply normal; 11½@12¢ lb.

Portland: Demand good; supply ample; trend unchanged; $13 cwt.

Minneapolis: Steady trend; adequate supplies; fair demand; $10.75@11 cwt.

Los Angeles: Demand slow; trend steady; supply adequate; 14¢ lb. in less than ton lots; 13¾¢ lb. in ton lots.

DRIED WHEY

Ogden: Supply normal; $6.90, 100-lb. bag.

Cincinnati: Demand fair; trend steady; supply adequate; $5.35 cwt.; sweet $5.75 cwt.

Louisville: Demand slow; trend steady; supply ample; 6@6½¢ lb.

Ft. Worth: Demand fair; supply adequate; carlots, standard $6 cwt., sacked, delivered Ft. Worth or any Texas points or in ton lots, f.o.b. warehouse, Ft. Worth.

Philadelphia: Demand dull; supply fair; $6.25 cwt.

Portland: Demand good; supply ample; trend unchanged; $6.05 cwt.

Boston: Demand steady; supply plentiful; $5.90 cwt., small lots 6¼¢ lb.

Chicago: Demand good; supply ample; $5.20 cwt., f.o.b. plant.

Minneapolis: Steady trend; fair demand; more plentiful supply; $5.40@5.60 cwt. Other sources quote $5.10, f.o.b. producers' points for both regular and partially delactosed.

Kansas City: Demand fair; trend steady; supply light; $5.10 cwt., f.o.b. producers' points for both regular and partially delactosed.

Seattle: Demand and trend steady; supply good; $6.25 cwt., ex-warehouse, l.c.l.

Los Angeles: Demand slow; trend unchanged; supply adequate; $5.75 cwt. in carloads; $6 cwt. in l.c.l.

Denver: Demand fair; trend unchanged; supply ample; $7 cwt., $6.10 carlots.

FEATHER MEAL (HYDROLYZED)

Boston: Demand steady; supply short; $85, f.o.b. shipping points.

Ft. Worth: Demand good; supply very limited; $101, f.o.b. trucks, north Texas plants.

Atlanta: $94, sacked, f.o.b. Alabama and Georgia producing points, immediate.

Los Angeles: Demand good; trend steady; supply limited; $1.25 a unit of protein.

Salisbury, Md.: Firm trend; strong demand; limited supplies; $88 bulk, f.o.b. plants; sacked $4 more.

FISH MEAL

Cincinnati: Demand fair; trend steady; supply adequate; $120@130.

Portland: Demand slow; supply ample; trend firm; $2.50, f.o.b. Vancouver.

Ft. Worth: Demand good; limited offerings; Peruvian 65% protein $145, ex-dock, Houston, immediate-last half April delivery.

Louisville: Demand dull; trend easy; supply normal; $135@140.

Ogden: Supply average; $2.20 a unit, f.o.b. Coast; 65% $151@153.

Chicago: Demand good; supply very limited; eastern menhaden fish meal, 60% protein $133@136; western blended, 60% protein $145; imported $135@145; Northwest herring-salmon blend, nominally $137; Canadian herring, 73% protein $2.30@2.40 a unit of protein; 60% blended, $160, delivered Midwest points.

Milwaukee: Demand good; supply fair; 60% $158, Milwaukee.

Buffalo: Demand good; trend steady; supply limited; 50% protein menhaden $142 bulk, $147 sacked.

Boston: Demand fair; supply spotty; 60% $133.

Minneapolis: Very firm; fair demand; fair supply; 60% meal, delivered $150.

Seattle: Demand fair; trend firm; supply limited; $2.40 a unit protein, f.o.b. truck, Vancouver, B.C.

Denver: Demand fair; trend unchanged; supply limited; 70% herring $2.45 a unit, f.o.b. Seattle; 60% menhaden $137, f.o.b. Gulf.

Los Angeles: Demand good; trend steady; light offerings; local production 60% protein $2.37½@2.40 a unit of protein.

HAY

Boston: Demand steady; supply adequate; No. 2 timothy $40@42.

Ogden: Supply normal; $1 bale; $18 in the barn.

Ft. Worth: Demand fair for alfalfa, practically nil for prairie and Johnson grass; supply sufficient; carlots, baled, No. 1 alfalfa $38@40, No. 2 $36@38; prairie No. 2 $26@28; No. 2 Johnson grass $24@26, delivered Texas common points.

Cincinnati: Demand fair; trend steady; supply adequate; No. 1 timothy $23.50; No. 1 red clover $25; No. 1 second cutting green alfalfa $30; No. 1 red clover, mixed $27; wheat or oat straw $23.

Louisville: Demand dull; trend steady to easy; supply good; No. 1 hay, any variety of local $23@25; No. 2 hay, any variety of local $20@23; straw $18@20.

Wichita: Demand slow; supply ample; prairie $14@18, alfalfa $14@18.

Philadelphia: Demand dull; supply light; $32@35.

Portland: Demand slow; supply ample; trend unchanged; $25.

Seattle: Demand slow; trend weak; supply good; alfalfa U.S. No. 2 green $22, delivered, truck lots.

Denver: Demand slow; trend steady; supply ample; baled alfalfa $24@26; baled mountain $30@33.

Los Angeles: Improved demand with light offerings; new crop, Imperial Valley No. 1 $35@36; U.S. No. 1 $32@34; U.S. No. 2 leafy $30@31; U.S. No. 2 green $29@30; No. 2 $27@28.

HOMINY FEED

Cincinnati: Demand good; trend steady; to higher; supply adequate; $51.

Louisville: Demand slow; trend steady; supply good; $47.60.

Chicago: Demand fair; supply improving; $46.50.

Buffalo: Demand good; trend higher; supply fair; $52.50, bulk, Boston.

Milwaukee: Demand good; supply fair; $47 sacked, Milwaukee, May shipment.

Boston: Demand steady; supply adequate; $55.50.

St. Louis: Demand slow; trend higher; supply ample; yellow $46.50.

Kansas City: Demand good; trend stronger; supply tight; yellow or white $39.50@40 bulk, with $3.50 more for sacks.

Seattle: Demand slow; trend steady; supply good; $53, carlots.

Memphis: Demand nil; trend steady; supply ample; white $49, yellow $49.

LINSEED OIL MEAL

Boston: Demand and supply limited; $73.75.

Chicago: Demand fair; supply tight; solvent $56.50@66; expeller $68@68.50.

Milwaukee: Demand good; supply fair; old process $67.25; new process $64.75.

Cincinnati: Demand poor; trend steady; supply adequate; new process $63.50; old process $71.50.

Louisville: Demand slow; trend stronger; supply normal; old process $75.75, new process $72.25.

Philadelphia: Demand and supply fair; 34% $75.

Ft. Worth: Demand slow; supply adequate; carlots, 34% extracted, April $78.75.

Wichita: Demand fair; supply sufficient; 34% linseed oil meal $75.50.

Portland: Demand slow; supply ample; trend unchanged; $73.

Omaha: Demand light; supply limited; 34% solvent $59.25, bulk, Omaha; 32% old process $63.25, bulk.

Minneapolis: Strong trend; tight supplies; limited offerings; good demand; new process, April-May $54.50, bulk basis, Minneapolis; old process $57.50, April; 22% flaxseed screenings oil feed $35.50, bulk basis, Minneapolis, May shipment.

Kansas City: Demand slow; trend steady after advances; supply adequate for demand; solvent meal $54@54.50, bulk, Minneapolis; old process meal $56.50@57.50.

Los Angeles: Demand slow; trend unchanged; supply adequate; local production, 29% protein $61@62.

Denver: Demand fair; trend firm; supply ample; 34% $77, rail.

Seattle: Demand slow; trend firmer; supply ample; $75, delivered, car loads, 34% protein.

MALT SPROUTS

Cincinnati: Demand fair; trend steady; supply adequate; No. 1 $40.

Boston: Demand and supply limited; in bulk $44.50.

Chicago: Demand fair; supply adequate; No. 1 $31.50@32.

Milwaukee: Demand good; supply fair; oddweights $32.50, evenweights $35.

MEAT AND BONE MEAL

New York: Demand and supply good; trend steady; 50% $87.50, 55% $95, bulk; 50% $90.50, 55% $98, sacked.

Buffalo: Demand just fair; trend steady; supply ample; 50% meat scraps $97.50 bulk, $102.50 sacked.

Chicago: Demand good; supply limited; 50% protein $107.50@110.

New Orleans: Demand good; trend firm; supply limited; 50% protein $95@110.

Boston: Demand and supply steady; $1.50 a protein unit; converted 50% $87.50.

St. Louis: Demand slow; trend weaker; supply limited; $116.

Cincinnati: Demand good; trend steady; supply ample; 50% meat and bone scraps $97.50, sacked, f.o.b. Cincinnati.

Wichita: Demand good; supply sufficient; 50% $107.50, f.o.b. plant; 55%, no quotations, no offerings.

COD - LIVER - OIL
FROM ICELAND
VITAMIN-A-STABILIZED
MIDLAND WESTERN INC.
160 W. SPRUCE ST., READING, PA.
FROM ICELAND

USERS OF ANIMAL PROTEINS AND FATS!
Keep accurately posted and watch your profits rise!
Pratt's FATS & FEEDS DAILY, an authoritative price guide, has published for over 50 years the markets on dry rendered fankage, meat & bone meal, wet rendered fankage, feather meal, tallow and grease as well as vegetable oils and meals and other animal and vegetable feed raw material. Write us for a sample copy and subscription rates.
PRATT BROS. COMPANY
154 Nassau St. New York 38, N. Y.
183 Essex St. Boston 11, Mass.
431 So. Dearborn St. Chicago 5, Ill.

FEED GRAINS
KAFIR-MILO
BARLEY - CORN - OATS - WHEAT
From Every Grain Producing Area in United States
CONTINENTAL GRAIN COMPANY
OFFICES:
New York, Chicago, Kansas City, St. Louis, Omaha, Columbus, Memphis, Norfolk, Nashville, Enid, Minneapolis, Louisville, Fort Worth, Buffalo, Toledo, Houston, Galveston, Portland, San Francisco, Vancouver, B.C., Winnipeg, Los Angeles
TERMINAL ELEVATORS:
Kansas City, St. Louis, Chicago, Buffalo, Omaha, Toledo, Columbus, Fort Worth, Portland, Boston, Galveston, Enid, Minneapolis, Norfolk, San Francisco, Nashville, Louisville, Memphis, Houston

Ogden: Supply normal; $110 in 100-lb. bags.

Louisville: Demand good; trend steady; supply normal; $92.50@97.50.

Ft. Worth: Demand fair; supply extremely light; meat and bone, 50% $110@115, f.o.b. or delivered Ft. Worth.

Portland: Demand good; supply limited; trend firm; $2.10 a unit protein.

Kansas City: Demand fair; trend little weaker; supply adequate for demand; 50% meat and bone scraps $105.

St. Paul: Trend unchanged; fair demand; supplies adequate to meet demand; 50% meat scraps $112@118.

Omaha: $107.50, sacked, Omaha basis.

Seattle: Demand good; trend strong; supply poor; $115, ex-warehouse, 50% protein.

Los Angeles: Demand good; trend steady; supply very limited; 50% protein $2.15@2.35 a unit of protein.

MILLFEED

Minneapolis: Stronger trend; middlings very strong with strong mixer demand for bran and middlings; mill running time down from previous week brought tight supply situation; bran $42@42.50, standard midds. $43.50@44; flour midds. $45@46; red dog $46@48.

Kansas City: Demand very good for all types; trend stronger; supply tight for all types, especially sacked shorts, realization that big Kansas City mill of Flour Mills of America is closing down possible factor in quickening interest; bran $39@39.75, shorts $40.50@41.25, sacked; bran $35@35.75, shorts $39.50@40.25, middlings $39@39.75, bulk.

Wichita: Demand good; supply sufficient; basis Kansas City: bran $38@38.50, shorts $38@38.50; bran declined 25¢, shorts were unchanged, compared with the preceding week.

Ft. Worth: Demand fair; offerings light; carlots, burlaps, prompt, bran $47@48, gray shorts $47.50@48.50, delivered Texas common points; $1@1.50 higher on bran and $1@2 higher on shorts compared with previous week.

Omaha: $39.50 sacked shorts; sacked gray shorts $40.50; bulk middlings $39.50.

Chicago: Millfeeds were slightly higher to steady during the week ending April 9. Demand increased moderately while flour mill operating time fell back somewhat. Lighter millfeeds advanced 50¢ to $1.50 ton. Quotations: bran $43@43.50, standard midds. $44.50@45, flour midds. $48@49, red dog $49@51.

St. Louis: Demand good; trend higher; supply limited; bran $44.50@45, shorts $46@46.50, sacked; bran $40.50@41, shorts $45@45.50, middlings $44.50@45, bulk.

Cincinnati: Demand good; trend lower; supply adequate; bran $48; middlings $49.

Boston: Demand cautious; supply adequate; standard bran $52.20@53.50; standard midds. $53.20@54.

Buffalo: The millfeed market bottomed out for the time being last week. Middlings were fairly active, helped by a favorable price ratio, compared with other ingredients, and the nearness to the seasonal mash upturn. Bran was a little quiet and red dog was under pressure. Bran $45@45.50, standard midds. $47@47.50, red dog $53.50@54. The bulk differential on both bran and middlings was $5.

New York: Demand and supply fair; trend steady; bran $53.75@54.25; standard midds. $55.25@55.75.

Philadelphia: Demand spotty; supply fair; bran $53, standard midds. $53.50, red dog $61.50.

New Orleans: Demand good; supply limited; trend stronger; bran $49@50.50; shorts $50@51.75.

Memphis: Demand fair; trend higher; supply short; wheat bran $47, gray shorts $49, standard midds. $49.

Louisville: Demand fair; trend easy; supply ample; bran $49.75, mixed feed $50.25, shorts $51.25, middlings $51.50.

Seattle: Demand fair; trend firm; supply ample; $39, delivered common transit points, carlots.

Portland: Demand slow; supply ample; trend lower; $37.

Ogden: Supply average; to Utah and Idaho: red bran and mill run $35, middlings $40; to Denver: red bran and mill run $42, middlings $47; to California: red bran and mill run $42.50, middlings $47.50, f.o.b. San Francisco and Los Angeles.

Denver: Demand very good; trend strong; supply ample; bran $42.75, shorts $44.25, mill run $43.50.

Los Angeles: Standard mill run $47, good demand, firmer trend, limited offerings; red bran $52.50@54, slow demand, firmer trend, ample supplies.

MINERAL FEED

Ft. Worth: Demand fair; supply ample; all-purpose granules $89, block $94; mineral phosphorus 6% granules $105, block $110; cattle-sheep mineral 7% phosphorus granules $99, block $103; hog mineral phosphorus 3½% granules $88, phosphorus 2% $78 (all in 50-lb. paper bags).

Wichita: Demand good; supply adequate; all-purpose with iodine, 50-lb. blocks $95, 100-lb. bags $90, f.o.b. plant.

Sioux City: 50-lb. mineral blocks 8.2% phosphorus $92; 7.5% phenothiazine sheep mineral blocks $4 each.

Ogden: Supply average; $110 in 50-lb. blocks; $98, granular, 50-lb. bags.

Portland: Demand slow; supply ample; trend unchanged; $42.

Seattle: Demand fair; trend steady; supply good; mixer mineral $45, ex-warehouse; all-purpose mineral $85, ex-warehouse.

Denver: 7.5% phenothiazine, 45-lb. block $4.50; 8.2% phosphorus, 50-lb. block $3.50; 7.5% phenothiazine, 8.2% phosphorus, 45-lb. block $5.25; 5% phosphorus, 50-lb. block $2.65.

MOLASSES

Cincinnati: Demand fair; trend steady; supply adequate; 14½¢ gal., New Orleans.

Ft. Worth: Demand fair; supply sufficient; blackstrap 15½¢ gal., f.o.b. Houston; delivered Ft. Worth truck $34.20, seller's market price on date of shipment.

Louisville: Demand fair; supply ample; trend firm; 14½¢ gal., tank car lots, f.o.b. Gulf ports.

Atlanta: Demand fair; trend steady; supply ample; citrus $18, bulk, f.o.b. Florida producing points, immediate.

Minneapolis: Very firm trend; good demand; adequate supplies; 14⅝¢ gal., New Orleans, April; 15½¢ gal., May, June and July.

Kansas City: Demand good; trend higher; supply adequate; 14½¢ gal., tank car, New Orleans, for April shipment, and 15¢ gal. for May through September.

Seattle: Demand fair; trend steady; supply good; $24, f.o.b. Seattle, tank car lots or truck lots.

New York: Demand and supply good; trend steady; blackstrap 18¢ gal., tank cars, tank wagons, f.o.b. New York.

Buffalo: Demand and supply good; trend steady; 18½¢ gal., f.o.b. Albany.

New Orleans: Demand fair; trend stronger; supply sufficient; 14½¢ gal., tank cars and trucks; 600-lb. customers' drums $9.36.

Milwaukee: Demand fair; supply good; blackstrap 14¢ gal., f.o.b. New Orleans.

Boston: Demand steady; supply plentiful; 18½¢ gal. in tank cars.

St. Louis: Demand slow; trend higher; supply ample; 14½¢ gal., New Orleans.

Denver: Demand fair; trend steady; supply ample; $47, tank car.

Los Angeles: Demand slow; trend steady; supply ample; $24 bulk, f.o.b. tank cars; $24.25 bulk, f.o.b. tank trucks.

Memphis: Demand good; trend higher; supply light; blackstrap 14½¢ gal., tank car, f.o.b. New Orleans, and $31 Memphis.

NIACIN

New York: Trend steady; $8 kilo, 50-kilo lots; $8.10 kilo, 10-kilo lots; $8.20 kilo, 5- and 2½-kilo lots; $8.30 kilo, 1-kilo lots; freight prepaid or paid to destination.

OAT PRODUCTS

Boston: Demand fair; supply spotty; white pulverized $54; reground oat feed, none offered.

Chicago: Demand fair; supply adequate; reground oat feed $14@14.50; fine ground feeding oatmeal $71@72; feeding rolled oats $82@84.

Seattle: Demand fair; trend firmer; supply ample; whole oats $60, ground oats $60, rolled oats $62.

Minneapolis: Slightly stronger trend; demand fair to good; supplies adequate; feeding rolled $47; pulverized $44; feeding oatmeal $71; crimped $62; reground $17.

New Orleans: Demand poor; trend steady; supply ample; ground $70@70.50, pulverized $70.50@71.

Louisville: Demand fair; trend steady; supply normal; reground $22.50, rolled $89, feeding $81, pulverized $50.50, crimped $70.

Ft. Worth: Demand fair; supply sufficient; oat millfeed $39.95; reground oat millfeed, 3% protein, sacked $23.85; 8% protein, bulk $27.

Cincinnati: Demand fair; trend steady; supply adequate; reground oats $20.50; pulverized white oats $47@51; rolled oats $85@91.

Philadelphia: Demand slow; supply fair; pulverized white $52.50; Canadian oat feed $26.50, nominal; domestic oat feed $26.

Portland: Demand slow; supply ample; trend unchanged; rolled $59, ground $56, cleaned $59.

Los Angeles: Demand slow; trend steady; supply adequate; pulverized, local production $80.

Memphis: Demand poor; trend steady; supply ample; 3⅛% protein, reground oat feed $20.

OYSTER SHELL

Seattle: Demand and trend steady; supply good; eastern $40, l.c.l., ex-warehouse.

Cincinnati: Demand fair; trend steady; supply adequate; $21.75.

Louisville: Demand fair; trend steady; supply good; in 80-lb. paper bags $23.17, in 50-lb. paper bags $23.42, in 25-lb. paper bags $25.67.

Portland: Demand good; supply ample; trend unchanged; western $32, eastern $38, granite grits $26, shell flour $16.

Boston: Demand and supply steady; $25.36 in paper.

New Orleans: Demand fair; trend steady; supply ample; $14.80@16 local.

Los Angeles: Demand slow; trend steady; supply ample; $14.80.

PEANUT OIL MEAL

Atlanta: Demand fair; trend strong; supply limited; 45% $71, sacked, immediate.

Milwaukee: Demand and supply fair; 26% $36.

PEAT MOSS

Seattle: Demand and supply good; trend steady; $3.25 bale, delivered, truck lots.

Philadelphia: Demand and supply fair; $2.90, f.o.b. pier.

Portland: Demand good; supply ample; trend unchanged; $3.25 bale.

Chicago: Demand heavy; supply moderate; $3.75@3.85, standard 7½ cu. ft. bale.

Boston: Demand and supply steady; $3.15 bale in carlots.

Los Angeles: Demand slow; trend steady; supply adequate; Canadian, 6.1 cu. ft. bales $3.85.

POTASSIUM IODIDE, U.S.P.

New York: Trend steady; granular or crystals $1.90 lb. in 250-lb drums, $1.92 lb. in 100-lb. drums, $1.95 lb. in 25-lb. drums; 90% KI in calcium stearate or carbonate mixtures, $1.81 lb. in 250-lb. drums or 200-lb. lots, $1.83 lb. in 100-lb. drums, $1.86 lb. in 25-lb. drums; f.o.b. New York, New Jersey or Pennsylvania, freight allowed to destination on 100-lb. drums or larger packings.

Cincinnati: Demand good; trend steady; 90% KI in calcium stearate or carbonate mixtures, 250-lb. drums $1.81; 200 lb. in 100-lb. drums $1.83; 25-lb. drums $1.86, f.o.b. Cincinnati.

POULTRY BY-PRODUCTS

Boston: Demand good; supply short; $95.

Atlanta: $105, sacked, f.o.b. Alabama and Georgia producing points, immediate.

Ft. Worth: Demand good; supply very limited; 65% protein $105.50, f.o.b. north Texas plant.

Los Angeles: Demand good; trend steady; supply limited; $2 a unit of protein.

Salisbury, Md.: Firm market; strong demand; limited supplies; $92 bulk, f.o.b. plants; sacked $4 more.

RIBOFLAVIN

Cincinnati: Trend steady; feed grade (in feed supplements) 4¢ gram in 3.36 to 16 gm./lb. mixtures, freight prepaid or paid to destination.

New York: Trend steady; feed grade (in feed supplements) 4½¢ gram in 3.36 to 16 gm./lb. mixtures, freight prepaid or paid to destination.

RICE BY-PRODUCTS

Atlanta: Demand fair; trend steady; supply limited; bran $47, sacked, immediate.

Ft. Worth: Demand fair; very light offerings; carlots, rice bran, nominal $32@33, prompt shipment, f.o.b. south Texas rice mills; hulls $2, f.o.b. mills.

Los Angeles: Demand and trend steady; supply limited, but adequate; bran, California production, high fat content $52.

SCREENINGS

Minneapolis: Firm trend; heavy demand for very light supplies; shortage particularly for nearby; lights $8@18, mediums $19@25, heavies $26@36; Canadian, bulk $18; Canadian ground $27; flaxseed screenings $30; oil type flaxseed screenings, 15% basis $38.

Ft. Worth: Demand fair; supply sufficient; 12% protein, ground $32, nominal.

Cincinnati: Demand fair; trend steady; supply adequate; Canadian $22.50.

Buffalo: Demand and supply fair; trend higher; ground, sacked $32.75, New York; unground, bulk $24.25, New York.

Chicago: Demand fair; supply plentiful; ground grain screenings $26.50; Canadian, bulk $18.50.

New Orleans: Demand fair; trend stronger; supply adequate; chick size wheat $44@44.50.

SOFT PHOSPHATE WITH COLLOIDAL CLAY

Atlanta: $20.40@20.67.
Buffalo: $25.31@25.45
Chicago: $24.77@24.90.
Cincinnati: $23.47@23.60.
Des Moines: $25.23@25.35.
Kansas City: $24.88@25.
Memphis: $22.20@22.47.
Minneapolis: $25.92@26.06.
Philadelphia: $24.32@24.45.
St. Louis: $24.14@24.27.

SORGHUMS

Ft. Worth: Demand fair; supply limited; carlots, bulk, No. 2 yellow milo $2.36@2.38, Texas common points.

Los Angeles: Demand good; trend firmer; supply adequate; milo $2.70 cwt., bulk.

SOYBEAN OIL MEAL

Minneapolis: Very firm trend; good demand; scarce supplies for nearby; $67.25.

Kansas City: Demand excellent; trend strong; supply very tight for spot; meal for Kansas City and western spot shipment is quoted at $60@61, bulk, Decatur, with last half of April at $58@59 and scaling down on forward bookings to $51 for July-August; unrestricted meal $61.

Omaha: Stronger trend; good demand; $67.25 bulk, sacks $4.50 more.

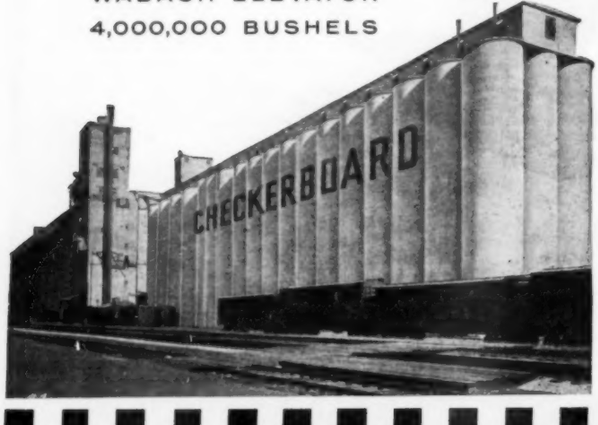
Atlanta: Demand good; trend strong; supply ample; 44% $72.50, sacked, immediate.

Seattle: Demand steady; trend strong;

MANEY BROS. MILL & ELEV. CO.
Minneapolis, Minnesota
Feed Ingredients of All Kinds
FORMULA MIXING FOR DEALERS
Excellent References

CHECKERBOARD – *The Mark of Top Quality – Top Service*

WABASH ELEVATOR
4,000,000 BUSHELS



MILO–CORN
ALL FEED GRAINS

CHECKERBOARD GRAIN CO.

BOARD OF TRADE BLDG. • KANSAS CITY, MO. • PHONE HA 1-1114
ST. LOUIS • CHICAGO • MINNEAPOLIS

supply ample; $91, delivered, carlots.

Boston: Demand fair; supply ample; 44% $55.50; 50% $68.50, both bulk, Decatur.

New Orleans: Demand good; trend stronger; supply adequate; 44% $80.50@81.

Decatur: Demand good; supply adequate; 44% bulk, unrestricted $59.

St. Louis: Demand good; trend firmer; supply adequate; $69.

Milwaukee: Demand good; supply fair; $56, bulk, Decatur.

Ft. Worth: Demand good; extremely limited offerings for nearby shipment, carlots, 44% $80@82, depending on origin and tonnage, scattered April; $78@80 May; truck delivery $70 April, $68 May.

Cincinnati: Demand poor; trend steady; supply adequate; $58@59, bulk, Decatur.

Wichita: Demand good; supply ample; 44% $71.50, 50% $83, f.o.b. Wichita.

Philadelphia: Demand and supply fair; 44% $56, bulk, Decatur.

Louisville: Demand slow; trend stronger; supply normal; $71.43.

Ogden: Supply average; $81@86.

Chicago: Demand for soybean meal was not heavy during the week ending April 9, but prices continue to inch up. Quotations climbed 50¢ ton during the period. Demand is heavier for nearby supplies. Quotations: 44% soybean oil meal $68.50@69.

Portland: Demand good; supply ample; trend higher; $54, f.o.b. Decatur.

Los Angeles: Demand good for nearby; trend firmer; supply limited; $90.97@91.47.

Denver: Demand fair; trend steady; supply ample; 44% $85, rail.

Memphis: Demand good; trend higher; supply limited; prime 44% solvent $63.50, sacked, f.o.b. Memphis.

TANKAGE

Wichita: Demand good; supply sufficient; 60% $112.50, f.o.b. plant.

Ft. Worth: Demand fair; supply extremely light; 60% digester $110@115, f.o.b. Ft. Worth.

Omaha: $110, sacked, Omaha basis.

Kansas City: Demand moderate after having slacked off some; trend steady; supply tight; 60% digester $110@110.50.

St. Paul: Trend unchanged; fair demand; supplies adequate; 60% digester $115@120.

Louisville: Demand good; trend steady; supply normal; 60% $97.50@102.50.

Cincinnati: Demand good; trend steady; supply ample; 60% digester $110, sacked, f.o.b. Cincinnati.

Chicago: Demand good; supply limited; 60% protein $112.50@115.

St. Louis: Demand slow; trend weaker; supply limited; $112.

New Orleans: Demand slow; trend easier; supply adequate; 60% $125@130.

VITAMIN E FEED SUPPLEMENT

Rochester, N.Y.: Demand and supply good; trend steady; 100-lb. drums $1.70 lb., 25-lb. drums $1.75 lb., f.o.b. manufacturing plants, freight allowed and goods insured to destination.

New York: Demand and supply good; trend steady; 100-lb. drums $1.70 lb., 25-lb. drums $1.75 lb., f.o.b. manufacturing plants, freight allowed and goods insured to destination.

Cincinnati: Demand good; trend steady; any quantity in 100-lb. drums $1.70; in 25-lb. drums $1.75, freight allowed to destination.

WHEAT GERM MEAL

Buffalo: Demand fair; trend steady; supply adequate; commercial grade $58, sacked, f.o.b. Buffalo.

Chicago: Trend slightly stronger; quiet demand; adequate supplies; $68.50.

New Orleans: Demand fair; trend steady to higher; supply adequate; $70@72, cottons.

FARM STOCKS

(Continued from page 4)

ported by USDA as approximately 258 million bushels.

Impoundings of corn under the loan umbrella for the February-March 15 period, were about 77.5 million bushels, as compared with slightly under 50 million in the same period a year earlier.

Forty six percent of the corn under loan originated in the low loan corn farms outside of acreage allotment compliance.

USDA officials have expressed some doubt on the keeping quality of some of the 1957 crop now in the loan program.

On the basis of the USDA report of 258 million bushels of corn under loan and 1.7 billion held on farms, it may be seen that by deducting the 230 million bushels in farm loan coverage there is at this time a potential farm-free market supply of about 1.4 billion bushels.

Undoubtedly more of the farm-held corn will find its way into the loan.

But after making allowance for heavier domestic disappearance of corn in the last half of the crop year due to the increased animal population, and a still robust broiler and poultry industry, further allowance must be made for the competitive influence of sorghum grains on corn. One can only reach the conclusion that with further expansion of supply in the form of such stocks, CCC must sell from its stocks, and the corn markets face a big burden of maintaining present price levels.

sfl2--ro a-cca-o -hK8 etaoin etaoinne

PET FOOD

(Continued from page 1)

The directors elected by the institute members are: Clyde Kassens, Perk Foods Co., Chicago; R. Parker Long, the Quaker Oats Co., Chicago; Max E. Stults, American Milling & Refining Co., Monmouth, Ill.; Joseph V. Getlin, Rival Packing Co., Chicago; David C. Read, Dixie Mills Co., East St. Louis, Ill.; Kenneth S. Duffes, Standard Brands, Inc., New York; James O. Cole, Cooperative G.L.F. Exchange, Inc., Canandaigua, N.Y.; A. C. Adams, Murphy Products Co., Burlington, Wis.; Edwin Knapp, Corn Products Sales Co., New York; J. P. McFarland, General Mills, Inc., Minneapolis; J. A. Briggs, Carnation Co., Los Angeles; C. A. Tornabene, the Kellogg Co., Battle Creek Mich.; Geoffrey Baker, Ralston Purina Co., St. Louis; George M. Laimbeer, General Foods Corp., Battle Creek, Mich.; Jason A. Hervin, the Hervin Co., Tualatin, Ore.; Ralph B. Hollingsworth, Nutrena Mills, Inc., Minneapolis; Harry V. Wissler, National Biscuit Co., New York.

Serving as officers will be Joseph V. Getlin, chairman; George M. Laimbeer, vice chairman, and Clyde Kassens, secretary-treasurer.

Henry Bucklin of the Byrne Marcellus Co., a professional trade association management firm which was retained to manage the affairs of the institute, was elected president. The company, working with industry committees, will direct the institute's publicity and public relations program and will assist members in other phases of the institute's organizational activities.

The Pet Food Institute will maintain headquarters at 332 S. Michigan Ave., Chicago.

Pet food manufacturers formerly were a division of the American Feed Manufacturers Assn.

F. B. MORRISON

(Continued from page 1)

had been living in Sarasota and Upper Saranac, N.Y.

The funeral was to have been held April 10 in Fort Atkinson, Wis., Dr. Morrison's birthplace.

The educator, nutritionist and author is perhaps best known for his outstanding book, "Feeds and Feeding," which has been translated into Russian, Portuguese and Spanish. The prologue to the new Spanish edition says it is "the most important work in agriculture published in the present century."

Honored Upon Retirement

In their tribute to Dr. Morrison, Cornell officials said Dr. Morrison built the university's animal husbandry department into one of the largest and best in the world. When he retired, livestock leaders, Cornell alumni and staff, and friends and associates presented a portrait of him to the university. The painting hangs in Wing Hall on the Cornell campus.

A native of Fort Atkinson and a farm boy, Dr. Morrison graduated first in both his high school and college classes. He served on the University of Wisconsin staff as acting dean of the College of Agriculture for one year and assistant director of the Experiment Station for 12 years.

He went to Cornell in 1927 as director of both the State Agricultural Experiment Station at Geneva and the Cornell Agricultural Experiment Station. He became head of the animal husbandry department in 1928.

Also in 1928, he was a member of a commission that studied the livestock industry in Germany and in 1937 he surveyed livestock problems in the Philippines.

In 1949, he studied livestock conditions in Argentina and other South American countries. And in 1954, he made a detailed survey of the Venezuelan livestock industry.

After World War II, the Near East Foundation appointed Dr. Morrison an advisor for its program to rehabilitate and improve farm livestock in Greece and other Balkan countries.

Dr. Morrison and his wife, the former Elsie Rea Bullard, have endowed a graduate fellowship at Cornell, especially for foreign students, but available to others, for research in livestock feeding and nutrition. They have also endowed an annual award by the American Society of Animal Production to a scientist for "outstanding research in livestock production."

In 1938, the American Society of Animal Production gave Dr. Morrison its highest honor when his portrait was presented to the Saddle and Sirloin Club in Chicago. The portrait hangs in the gallery there with other famous agricultural leaders.

Dr. Morrison was past president of the American Society of Animal Production and a Fellow of the American Association for the Advancement of Science.

He was a member of the National Research Council's Committee of Feed Composition, the American Dairy Science Assn., and the British Nutrition Society.

Dr. Morrison's work on "Feeds and Feeding" began as one step in his plan to work his way through school. He revised the book constantly through the years.

He received honorary doctors of science from the Universities of Vermont and Wisconsin. He gave special short lecture courses at the University of California, Utah Agricultural College, Texas Agricultural College, Mississippi State College, and South Dakota State College.

Besides his wife, Dr. Morrison is survived by two sons, Roger, a senior geologist with the U.S. Geological Survey, Denver, Colo., and Spencer, who recently resigned his research post to devote more time to the Morrison Publishing Co., publisher of "Feeds and Feeding" and "Feeds and Feeding, Abridged," and to conduct his consulting service.

BROILERS

(Continued from page 1)

this week, indicated somewhat lower prices. A USDA daily report for April 9 said that the market was weak in Delmarva, and prices were mostly around 18½ to 19½¢. In north Georgia on April 9, demand was improved in a few instances but continued spotty to mostly fair. Prices were mostly around 18¢ lb. In Arkansas, demand was reported good, and prices were 18½ to 19½¢.)

It is believed by leaders in the broiler industry that the broiler price increase, from 16.3¢ lb. in mid-December to a level of 3.6¢ higher a month later, was partly seasonal. Through Christmas, turkeys were the featured class of poultry, to the possible detriment of broiler prices. But this year's January increase was more than was expected from usual seasonal developments.

Some observers see recent declines in real consumer income, at a time when red meat prices have been rising, as a basis for strong broiler prices. They reason that at current prices, broilers are a relatively economical meat.

On a seasonal basis, demand for broilers continues upward until the summer peak. July and August prices are often among the highest of the year, despite the peak of marketings at that time. In view of the large number of broilers now growing, perhaps 10% more than last year, continued firm prices through the summer are not assured. But the prevailing spirit in the industry is much more optimistic than during most of 1957.

Nationwide last week, hatcherymen in 22 states set 45,932,000 eggs. This was 2% more than the previous week and 16% above the corresponding week a year ago. Increases in the number of eggs set from the previous week were reported in 15 of the 22 states.

Broiler growers in the 22 states placed 31,134,000 chicks. This was 5% more than the previous week and 14% above the corresponding week a year ago. Fifteen of the 22 states reported higher placements compared to the previous week. Substantial increases occurred in Georgia, Virginia, Pennsylvania, Delaware and Alabama.

Chicks Placed in Principal Broiler Areas

(000's omitted)

Week ending	Maine	Conn.	Penn.	Ind.	Ill.	Mo.	Del.	Md.
February 1	955	543	731	853	148	647	1,979	1,642
February 8	1,013	573	932	847	153	683	1,926	1,567
February 15	1,018	596	812	780	153	592	1,921	1,735
February 22	961	528	867	957	131	669	1,928	1,733
March 1	1,013	531	784	964	136	716	1,941	1,751
March 8	999	583	885	993	179	620	1,986	1,616
March 15	1,003	611	831	905	139	644	1,967	1,540
March 22	962	656	804	958	175	659	1,788	1,788
March 29	1,010	669	774	870	172	741	1,741	1,806
April 5	1,044	599	997	889	142	739	1,950	1,698

Week ending	Va.	W. Va.	N.C.	S.C.	Ga.	Fla.	Ala.	Miss.
February 1	1,216	556	2,345	327	6,142	195	2,540	1,477
February 8	1,242	525	2,415	312	6,165	215	2,465	1,461
February 15	1,271	531	2,423	354	6,108	240	2,444	1,630
February 22	1,277	492	2,495	343	6,132	229	2,397	1,751
March 1	1,191	518	2,570	297	6,244	241	2,731	1,538
March 8	1,204	466	2,651	323	6,307	259	2,509	1,644
March 15	1,135	460	2,518	393	6,015	203	2,588	1,537
March 22	1,146	470	2,271	327	5,840	221	2,440	1,452
March 29	1,141	527	2,335	306	6,103	237	2,584	1,468
April 5	1,397	549	2,432	348	6,468	253	2,790	1,552

Week ending	Ark.	La.	Texas	Wash.	Oregon	Calif.	Total 22 areas 1958	1957
February 1	2,560	381	2,256	249	153	931	28,746	26,264
February 8	2,687	380	2,293	274	154	927	29,209	26,799
February 15	2,766	429	2,140	323	158	1,071	29,307	25,704
February 22	2,897	508	2,478	288	170	1,022	30,253	26,378
March 1	2,678	484	2,340	297	163	1,007	30,041	25,589
March 8	2,715	471	2,431	327	195	957	30,320	26,815
March 15	2,570	392	2,279	324	207	930	29,191	27,379
March 22	2,535	413	2,378	312	151	1,052	28,798	27,558
March 29	2,650	458	2,394	366	175	1,029	29,556	27,491
April 5	2,812	443	2,528	297	183	1,024	31,134	27,367

Oilseed Meal Futures Show Sharp Advance

MEMPHIS—Oilseed meal futures moved up sharply on the Memphis Board of Trade the past week, based mainly on reports of good mixed feed demand and colder weather over principal feeding regions. Offerings were light. Old crops made season highs April 9.

Early in the week, prices eased from former highs as the result of speculative profit-taking and a small amount of hedging.

Activity broadened on the advance, with commission houses predominantly on the upside.

Unrestricted scybean oil meal April 9 closed 25¢ to $2.60 ton higher than on April 2. Eastern Trunk Line soybean oil meal closed 50¢ to $3.50 higher, bulk solvent cottonseed oil meal was unchanged to 50¢ higher and sacked old process cottonseed oil meal was unchanged.

Millfeed Production Shows Decrease

Production of millfeed in tons for week ending April 5, and prior two weeks, together with season total of (1) principal mills in Nebraska, Kansas and Oklahoma and the cities of Kansas City and St. Joseph; (2) principal mills of Minnesota, Iowa, North and South Dakota and Montana, including Minneapolis, St. Paul and Duluth-Superior; (3) mills of Buffalo, N.Y. Production computed on the basis of 72.6% flour production.

	——Southwest*——		—Northwest*—		——Buffalo†——		—Combined**—	
	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop yr. to date
Mar. 30-Apr. 5 ..	26,389	1,058,546	12,952	547,431	9,042	421,541	48,383	2,027,558
Previous week	$26,937		$13,774		10,713		$51,424	
Two weeks ago ...	26,548		12,769		10,960		50,227	
1957	25,460	1,079,253	12,977	555,287	10,763	434,016	49,200	2,068,556
1956	25,185	1,022,537	12,088	539,506	8,464	371,684	45,737	1,933,727
1955	24,066	1,005,292	12,144	539,525	10,050	426,475	46,260	1,971,282
1954	22,928	963,356	10,041	573,054	8,169	445,964	41,138	1,982,374

*Principal mills. **74% of total capacity. †All mills. $Revised.

12.3 Million Acres Now Signed for Acreage Reserve

WASHINGTON — Farmers have offered a total of 12,301,684 "allotment" acres of wheat, corn, cotton, rice and tobacco for the 1958 acreage reserve of the soil bank on signed and filed applications, according to reports from state agricultural stabilization and conservation offices to the U.S. Department of Agriculture. The latest state reports, made as of March 28, reflect some slight adjustments from previously available information.

Meanwhile, with an additional $250 million in funds made available by Congress, county ASC committees on March 31 were authorized to accept applications for 1958 acreage reserve agreements from farmers on "waiting lists." As of March 28, this additional acreage, offered by farmers on the basis of "if and when funds are available," would bring the total amount of land for the 1958 program to slightly over 18 million acres.

Sign-up for the 1958 acreage reserve for spring planted crops closed Feb. 20 for spring wheat, corn and cotton and March 7 for rice and tobacco. For winter wheat, the program closed last fall when 3.9 million acres were put in the program.

Total By Crops

By crops, and within fund allocations, farmers through March 28 had signed and filed applications for 4,887,341 acres wheat (including 3.9 million acres winter wheat and 987,000 acres spring wheat), 3,131,916 acres upland cotton, 4,043,372 acres corn, 143,083 acres rice and 95,972 acres tobacco. These acreages were covered by a total of 668,392 signed and filed applications.

If the applications are accepted and farmers comply with the program, they could earn a maximum of $473,386,018 on the 12.3 million acres offered in signed applications.

CHICAGO

(Continued from page 7)

weighing departments all over the grain belt.

Inception of Futures

Trading in contracts calling for the delivery of grain at some future date had its inception at the Chicago Board of Trade.

Today, the Chicago Board of Trade does approximately 90% of the grain futures business of the world—running into billions of bushels each year. And, of that gigantic total, an appreciable percentage is engaged in to minimize the risk of financial loss resulting from an adverse price change in a seasonal agricultural commodity —whether that change in trend be upward or downward.

The exchange also performs other vital functions for the farmer, grain industry and consumer. It is a sensitive recorder and rapid disseminator of price—the opinions of myriad buyers and sellers as to the value of commodities at a given moment. Producers and owners of grain can watch the market for the best time to sell. Buyers use market quotations as the basis for buying cash commodities.

Oilseed Meal Output Near Record Level

WASHINGTON—Production of oilseed meals during the 1957-58 feeding season, maintained by the heavy output from a record soybean crush, has been very close to last year's record level, the U.S. Department of Agriculture reports.

The March fats and oils situation report of the USDA shows that during October-February, production of the five principal oilseed cakes and meals totaled 4 million tons, 3% less than in the same period of 1956-57. Production of oilseed meal is expected to continue heavy, and for the entire feeding year is likely to total 10.5 million tons, just a little short of last year's record, the report said.

Soybean meal output is expected to reach a new peak of 7,850,000 tons, nearly 350,000 above a year earlier. It would represent about 75% of the total oilseed meal production in 1957-58.

The report said that soybean meal in recent years has accounted for an increasingly larger proportion of the total oilseed meal output, and more and more has gone into the mixed feed industry. Cottonseed and linseed meal outputs will be down about 15% this feeding year because of the sharply reduced cotton and flaxseed crops. Copra and peanut meal output is expected to be maintained near last year's level.

Exports were down sharply in October-January, 1957-58, to 146,200 tons, nearly 50% less than a year earlier. Exports for the entire feeding year are expected to decline almost by the same proportion from the 531,000 tons shipped abroad in 1956-57.

Oilseed meal prices this feeding year for the most part have averaged moderately lower than a year earlier, as supplies of high protein feed are large and feed grains continue in record supply. Prices moved up quite steadily in February and through mid-March. Feeding continued heavy, and cold weather added to demand. Oilseed meal prices probably will slide off somewhat as this factor runs its course.

Rail Rates Reduced On Grain Shipments In Pacific Northwest

PORTLAND — Reduced rates on grain shipped by rail from Washington, Oregon and northern Idaho inland points to the Pacific Coast will go into effect May 12, W. R. Watson, chairman of the North Pacific Coast Freight Bureau, recently announced at Seattle.

The reduction will total an estimated $5 million annually, Mr. Watson revealed. He added that the new rate schedule will permit "much greater flexibility with rail movement to north coast terminal markets."

Harold Turner, Oregon Railroad Assn. manager, explained that the grain rail rate cut is the culmination of long planning by the railroads as the result of grain growers' demands at a series of meetings. Railroad studies leading to present reduction were conducted over an extended period, he said.

"The railroads will also seek to apply the lower rates on interstate grain shipments," Mr. Turner said. "A request will be made to the Oregon public utilities commissioner for permission to shorten the filing time for rates on intra-state shipment as soon as the inter-state rates become effective." Without such permission, the rates could become effective in Oregon only after 30 days' notice.

Trucks and river barges rather than railroads have recently been carrying a large portion of grain shipments. The new rates, Mr. Watson said, were designed to restore much of the lost business to the railroads. Principal railway companies announcing the rate reduction are Milwaukee, Great Northern, Northern Pacific, Spokane, Portland & Seattle and the Union Pacific.

USDA Extends Reseal Program

WASHINGTON—The U.S. Department of Agriculture has announced that the reseal program on grains will be extended to include 1957 crop grain sorghums put under farm-stored price support loans and to permit extension for another year of loans on 1956 crop farm-stored barley and oats now under reseal.

Under this program, farmers may continue their price support loans on certain farm-stored grains in some areas for another year. Farmers will earn storage payments during the loan extension period.

In addition to 1957 crop grain sorghums and extended reseal of 1956 crop barley and oats, 1957 crop corn, barley, oats and wheat put under price support farm-stored loans may be resealed and loans may be extended on 1956 crop wheat and 1955 and 1956 crop corn now under reseal.

By holding these grains on farms for another year instead of delivering them at maturity, the amount of storage space needed by USDA in taking over 1957 crops under price support should be reduced.

Eligibility requirements for grains under the reseal program will be the same for quality and storage as under the original loan.

Team Will Survey European Markets

WASHINGTON—The U.S. Department of Agriculture has announced that a team will leave April 15 to make a study of possibilities for future markets for U.S. feed grains in West Germany, Italy and Greece. Emphasis will be placed upon development of permanent dollar markets.

The market promotion survey is provided for under an agreement between the USDA's Foreign Agricultural Service and the National Federation of Grain Cooperatives. Part of local currencies accruing under Title I of Public Law 480 are available for such market development activities.

The survey team is composed of John J. McCracken, FAS, grain and feed division, and two representatives of the federation. They will study the immediate and long range possibilities of increasing sales of U.S. corn, grain sorghums, high protein meals, barley and oats in West Germany, Italy and Greece.

The federation representatives are Fred Maywald, manager, grain department, Farmers Grain Dealers Assn. of Iowa, and Dr. Max Jeter, director, products research, Indiana Farm Bureau Cooperative Assn.

GEAPS Meeting Set

CHICAGO — Chicago Grain Elevator & Processing Superintendents will meet at the home of Phil Smidt, 1205 Calumet Ave., Whiting, Ind., April 14 to discuss plans for the coming national convention of the GEAPS to be held May 11-16 at Minneapolis. The meeting is set for 6 p.m.

Gaddis Company Expands Operation

WALFORD, IOWA — R. J. Gaddis Co., Walford, has expanded its operation into a complete line of all types of self-unloading bulk feed bodies and changed its name. The new company is known as the Gaddis Bros. Mfg. Co., Inc. Gaddis Bros. will continue to use the Pak-Master brand name on its entire line of 13 different models of self-unloading bulk feed bodies.

Joining R. J. Gaddis in the new organization are his two brothers, Bill and Donald Gaddis, and Fred Kraushaar, bringing more than 20 years experience in the manufacture and sale of bulk feed delivery equipment.

The Gaddis Bros. Mfg. Co., Inc., is tripling the present manufacturing plant area of the R. J. Gaddis Co. at Walford.

The new Pak-Master line will include mechanical and hydraulic operated truck-mounted and semi-trailer-mounted self-unloading bulk feed bodies in both auger and air-unloading units, both hopper type and combination bag and bulk flat bed types.

Jack Plonsky Speaks

TEMPE, ARIZ.—Jack Plonsky, executive vice president of The Ray Ewing Co., Pasadena, Cal., addressed a recent gathering of southwestern dairymen at Arizona State College, Tempe. Mr. Plonsky, an authority on animal nutrition, took part in a discussion of "New Developments in Ruminant Nutrition." The discussion was moderated by Prof. E. Grant Moody of the dairy husbandry division of the college.

MARKETS

(Continued from page 2)

daily on soybean meal and remaining very firm on other types of protein feeding material.

With new pasture becoming available, reports indicate that cottonseed hulls and other similar roughages will be in for another wave of buying after a relatively quiet period recently. Supplies were almost critically tight, and prices were expected to advance from present levels.

Citrus pulp processors expected to complete this season's operations during the early part of May, and supplies from storage for shipment over the non-productive months were not expected to be adequate to carry until new crop becomes available. With a short operating season this year, and an expected very late beginning next year, supplies no doubt will be extremely short over the summer.

Feed mill running time has been good, and with rising prices on some of the major feed ingredients, mixed feed prices have been raised accordingly. Some feed manufacturers indicate that recent bookings of some major ingredients have carried them into May and, in some instances, even further. This is in contrast to practically 100% hand-to-mouth buying up until recent weeks.

Ohio Valley

Winter weather seems reluctant to release its grip on the Ohio Valley, as temperatures in the mid-30's, accompanied by snow flurries, prevailed early in the week. Although there were light frosts in some exposed areas, no crop damage was reported because the prolonged cold weather prevented more than the early budding of fruit trees and starting of pasture grasses. As a result, undercover feeding was continuing, with resultant good sales of all types of formula feeds.

The expected after-Easter increase in cattle and hog receipts at area stockyards failed to materialize, despite price advances of up to 75¢ cwt. Because of the Greek Easter demand, spring lambs were in such demand this week that prices for the short

supply advanced as much as $5.50 cwt.

All of which tends to confirm previous observations that the area farm animal crop has been depleted well below that of recent years, and that this situation likely will continue until the heavy spring replacements become marketable.

As was expected, retail sales of poultry and eggs fell off quite sharply, with small price declines reported at area wholesale markets. It was believed, however, that this trend would be short-lived, in view of improving economic conditions in the valley.

Warning of a possible serious summer drouth was issued during the week by Paul Kaser, Ohio state hydrologist, who said rainfall during the last three months amounted only to 3.97 in., half of normal, and the lowest on record since 1941. Unless late spring rains are sufficient to build up the underground water table, valley farmers could be facing the situation of three years ago, when it was necessary to pay fancy prices for water hauled long distances to supply farm animals and for personal uses.

California

The demand for formula feeds held just steady this past week. Rainy weather continued to prevail over most of the state and was a deterring factor to a pickup in feed sales.

Egg prices were unchanged with wholesale trading quiet, but stocks appeared to be well cleared. Live poultry prices held steady to 1¢ easier and most of the ranch buying was around 21¢.

High ingredient prices, especially for proteins, continued to plague the industry, and feeding ratios were less favorable. Cattle numbers in feed lots remained at a low level and the outlook was dim for much improvement in the next 60 to 90 days.

Pasture conditions remained excellent, and with new feeders price around 27¢, custom feed lot operators were very reluctant to build stocks.

The continued rains have done some damage to growing grain crops in low-lying areas but a lot of this has been offset by the benefit which was brought to higher lands in the non-irrigated sections. The seeding of other important field crops, such as cotton, has been delayed to a point where it was causing considerable concern.

Mountain States

Formula feed sales remained sluggish except for a normal increase in turkey feeds as more birds were placed and the older ones demanded more feed.

Demands for cattle feed were still quiet. Despite this, there were some increases in protein prices.

Stocker and feeder cattle prices continued on a high level to make heavy feeding less popular. Mild weather has been a factor, too.

Dealers generally reported a slow week—although in the vein that has persisted for some time.

South Central

Formula feed business in the area continued to be substantial and mills were operating on an overtime basis to keep up with demand. Saturday runs were necessary for some plants. However, the most common practice was to stretch out the regular eight hour shifts for an additional two hours and operate for five days. Although order backlogs were very small, daily incoming orders were sufficient to hold operations at this level.

An unusually prolonged cattle feed season has been experienced this year due to the effect of below normal temperatures and abundant rainfall on pastures. Although some greening up was taking place, pastures were far from their usual condition at this time of the year and feeders have been able to get scant use from them. A few days of warm sunshine would bring the pastures into lush growth and put a sharp crimp into cattle feed deliveries, however.

Hog feed sales were showing no signs of slackening from their very strong pace. With indications that hog prices should remain favorable to the producer through the summer, mills were counting on a continuing heavy proportion of their production going to this trade. The inability of chick starter sales to expand in their usual manner was attributed to the late spring season and the reluctance of buyers to get their chicks while the weather is unseasonable.

Pacific Northwest

Feed ingredient prices ruled firm to strong during last week's trading which saw $1 a ton higher listings quoted for wheat mill feed with meat scrap values advancing $2.50 a ton. Soybean meal edged 50¢ a ton higher and feed corn and oats each gained around $2 a ton.

Fish meal listings were unchanged, but firm quotes for milo and barley held fully steady prices throughout the trading period.

Major area mixers reported that formula feed sales increased on a seasonal basis with the most gains for broiler and turkey feeds. There was little change reported in volume of dairy feed sales over the previous period.

Most wholesalers quoted slightly higher high energy feed prices as the reflection of recent quotation gains for soybean meal, other animal proteins and corn.

North Portland livestock market prices last week were weak to 50¢ lower for butcher hogs with a $24 top; fed steers were steady to 50¢ with a $28.35 top for choice while fed lambs held steady with a $22 top for fed, wooled lambs and vealers sold strong to $1 cwt. up on a short supply.

The government's lower dairy products support prices were reflected at Portland and Seattle by 2¢ lb. cuts in butterfat producer-paying prices along with a 1¢ drop in wholesale butter prices and 2¢ lower listings for processed cheddar cheese. Listings held unchanged for all brands of natural cheddar cheese.

Portland egg prices were pressured mostly 3¢ doz. lower at the producer level as the result of sharply lower Eastern market quotations. Producer-paying prices at Portland closed at 37 to 39½¢ for AA large eggs with A large offerings at 34 to 36½¢. AA mediums brought poultrymen 33 to 35½¢ with smalls at 26 to 28½¢.

INDEX OF ADVERTISERS

The index of advertisers is provided as a service to readers and advertisers. The publisher does not assume any liability for errors or omissions.

Abbott Laboratories 36
Aeroglide Corporation .....
Agri-Tech, Inc. .....
Agricon, Inc. .....
Alabama Flour Mills .....
Albers Milling Co. .....
Albumina Supply Co., Inc... 66
Allied Chem. & Dye Corp. Nitrogen Division 52
Allied Mills, Inc. .....
Amburgo Co., Inc. .....
American Agri. Chemical Co...
American Cyanamid Co. ..22, 23
American Dehydrators Assn...
American Elec. & Grain Div...
American Mill Serv. Co. ....
Anchor Serum Co. .....
Anderson Box Co. .....
Andersons, The .....
Anderson, V. D., Co. 42
Andrews Machine Co. .....
Arbor Acres Farm 26
Arcady Farms Milling Co. ..
Archer-Daniels-Midland Co. ..
Arco Dehydrating Co. .....
Arkell & Smiths .....
Armour & Co. .....
Aubrey Feed Mills .....

Baker, H. J., & Bro. .....
Baker, J. T., Chem. Co. ...
Barker, Moore & Mein Co. ...
Barnard & Leas Mfg. Co., Inc. 24
Bartlett, C. O., & Snow Co... 78
Barton Salt Co., The 48
Bates Grain Co. .....
Baughman Mfg. Co., Inc. ...
Baxter, A. E., Engineering Co.
Bemis Bro. Bag Co. .....
Berg, Paul .....
Bigelow Sales Co. 87
Black, Sivalls & Bryson, Inc... 67
Blatchford Calf Meal Co. .. 64
Blomfield-Swanson .....
Borden Company 43
Bosworth Commission Co. ...
Bowman Feed Prod., Inc. 69
Bremco Alfalfa Mills, Inc. ...
Brewers Yeast Council, Inc...
Brower Manufacturing Co. 36, 62
Brown, Fred G., Pulv. Co. ...
Bruce Milling Co. .....
Bryant Engineering Co. .....
Burlap Council, The .....
Burrell, James H., & Co., Inc.
Burrows Equipment Co. 14
Burrus Feed Mills 54
Butler Chemical Co. .....
Butler Mfg. Co. 79

Calcium Carbonate Co. 55
California Pellet Mill Co. ... 76
Canadian Peat Moss, Ltd. ..
Caple, A. B., Co. .....
Cargill, Incorporated 72
Carson Food Co. 27
Chambers, John C., Co. ...
Champion Portable Mill Co... 72
Chantland Mfg. Co. .....
Chase Bag Co. 76
Chemo Puro Mfg. Corp. .....
Checkerboard Grain Co. 88
Chicago Feed Ingredient Co.
Citrus Processors Assn. .....
Cleveland Vibrator Co., The..
Clinton Corn Processing Co. .
Clofine, Herbert K. .....
Colby Miling, Inc. .....
Collier Livestock-Feeder Co...
Colonial Poultry Farms .....
Columbia Phosphate Co. 68
Columbia Quarry Co. 52
Columbian Steel Tank Co. ..
Commercial Solvents Corp. ..
Consolidated Blenders, Inc. .. 86
Continental Grain Co. 87
Continental Steel Corp. ....
Corn Products Sales Co. 70
Coronet Phosphate Co. 25, 77
Crete Mills 56
Cromwell Paper Co. .....
Crown Zellerbach Corp. .....
Cummings Schooler Co. .....

D. C. A. & Co. .....
Daffin Mfg. Co. .....
Dannen Mills, Inc. 92
Davis, H. C., Sons Mfg. Co. 83
Dawe's Laboratories, Inc. 61
Day Company, The .....
Daycom, Inc. .....
Decatur Elev. Co. .....
Dehydrating Process Co. .....
Delaware Poultry Laboratories 30
Devold, Peder, Oil Co. .....
Diamond V Mills, Inc. 72
Distillation Products Industries 63
Distillers Feed Research Council .....
Doane Agricultural Serv., Inc.
Doane Feed Products Co. .....
Doney Trailers .....
Doty Laboratories 14
Douglas Chemical Co. 34, 35
Dow Chemical Co. .....
Duplex Mill & Mfg. Co. 71
DuPont de Nemours & Co., Inc., E. I. .....

Early & Daniel Co. .....
Eastman Chemical Prod., Inc. 56
Ehrsam, J. B., & Sons Mfg. Co., The .....
Elam Grain Co. 32
Entoleter Division, Safety Industries, Inc. .....
Eriez Mfg. Co. 50
Eschenheimer, Rudy, Co. 66
Eshelman, John W., & Sons...
Ewing, Ray, Co. .....

Farmers Mutual Hail Ins. Co. of Iowa .....
Feed Service Corp. 27
Fischbein, Dave, Co. .....
Flavor Corp. of America 57
Flour Mills of America .....
Food Mach. & Chem. Corp...
Forster Mfg. Co. .....
Fox Co. 56
Fox Valley Milk Feeds, Inc...
Fruen Milling Co. 8

Georgia Peanut Co. .....
Glidden Co. .....
Gold Kist Peanut Growers ...
Gorton-Pew Fisheries 88
Grace Chemical Co. .....
Grain Processing Corp. 67
Grand River Chem. .....
Griffith Labs., Inc. .....
Gump, B. F., Co. .....

Hales & Hunter Co. .....
Hallet & Carey Co. .....
Hand, Peter, Foundation 3
Hardy, H. E., & Co. .....
Hardy Salt Co. .....
Harris-Crane, Inc. .....
Harshaw Chemical Co. .....
Hayes and Stolz .....
Haynie Menhaden Prod., Inc...
Heard-Kinard-Smith, Inc. ....
Heck, Edward J., & Sons Co...
Heil Co., The .....
Helm Manufacturing Co. .....
Henderson Mfg. Co. .....
Hercules Powder Co. .....
Hess & Clark, Inc. 32, 65
Heterochemical Corp. 83
Highway Equipment Co. 10
Hilltop Laboratories 44
Hoffman-Taff, Inc. 71
Hogenson Const. Co. 56
Hogg, N. D., Ltd. .....
Holt Products Co. .....
Homer Mfg. Co., Inc., The ..
Honeggers' & Co. 45
Honeymead Products Co. 21
Hot Spot Detector 63
Howes, S., Co., Inc. .....
Hubbard Milling Co. .....
Hubbell, Charles H. .....
Hygeno Litter Co. .....
Hy-Line Poultry Farms .....

Ibberson, T. E., Co. .....
Illinois Soy Products Co. ....
Indian Jute Mills Assn. .....
Industrial Commodity Corp...
Industrial Molasses .....
International Harvester .....
International Machinery Development Corporation ..
International Minerals & Chemical Corp. .....
International Paper Co. .....
International Salt Co., Inc... 37
Iowa Limestone Co. .....

Jackson, Gilbert, Co., Inc. .. 45
Jacobson Machine Works ... 15
James Mfg. Co. .....
Jersee Co. 76
Johns-Manville .....
Jones-Hettelsater Const. Co... 75

Kalo Co. 7
Kansas Soya Prod. Co., Inc... 68
Kees & Company 56
Kellogg, Spencer, & Sons, Inc.
Kem Mfg. Co. .....
Kemp, C. M., Mfg. Co. .....
Kent Feeds .....
Kent, Percy, Bag Co., Inc...
Keystone Steel & Wire Co. ...
Kindstrom-Schmoll Co. .....
Koelsch, Charles J., Grain Co.
Koppers Co., Inc. .....
Kraft Bag Corp. .....
Kraft Foods Co. 45
Kuss, R. L., & Co., Inc. .....

Laboratory Construction Co...
Labatt, John .....
LaBudde Feed & Grain Co... 53
Land O'Lakes Creameries, Inc. 10
Landers Mill Mfg. Co. .....
Lauhoff Grain Co. .....
Leftwich, J. H., & Co., Inc... 16
LeGear, Dr., Inc. .....
Lennox Industries, Inc. 69
Levens Mfg. Co. .....
Linck, O. E., Co., Inc. .....
Lilly, Eli, & Co. 41
Lima Armature Works .....
Limestone Products Corp. of America 72
Loncala Phosphate Co. 40
Longhorn Eng. Co. .....

M-G-R Feed Co., Inc. 83
McCabe Grain Co., Ltd. .....
McKesson & Robbins, Inc. ...
McMillen Feed Mills .....
Magnus, Mabee & Reynard .. 20
Maney Bros. Mill & Elev. Co. 4, 88
Marco Chemical Co. 40
Martenis, C. J., Grain Co...
Martin, Theo. W., & Son 69
Mayo Shell Corp. 70
Melos Mfg. Co. 64
Merchants Chemical Co., Inc.
Merck & Co., Inc. 12, 13
Mid-Continent Grain Co. 52
Midland Western 87
Mid-West Business Exchange. 82
Midwest Dried Milk Co. ....
Milbrew Co. 40
Mill & Elevator Co. .....
Miller Manufacturing Co. ...
Miller Publishing Co., The ..
Milligan & Son .....
Minneapolis Sewing Mach. Co.
Minnesota Linseed Oil Co... 49
Minnesota Specialty Co., Inc. 71
Monsanto Chemical Co. .....
Moores Mfg. Co. .....
Morton Salt Co. 19
Munson Mill Machinery Co. ...
Murphy Products Co. .....
Myers-Sherman Company ....

Nagel, Herman, Co. 67
Natl. Alfalfa Dehydrating & Mlg. Co. .....
Natl. Cottonseed Prod. Assn., Inc. .....
Natl. Distillers Prod. Co. ....
Natl. Molasses Co. .....
National Oats Co. .....
National Renderers Assn. 59
National Turkey Federation Underwriters .....
National Vitamin Products Co.
Nellis Feed Co. 49
New Century Co., The .....
New England By-Prod. Co. ... 88
Nichols, Incorporated .....
Nitrogen Div., Allied Chem. & Dye Corp. 52
Nootbaar, H. V., & Co. ....
Nopco Chemical Co. 53
North American Dodgen Co...
North American Trading & Import Co. 42
North Carolina Granite Corp. 50
North East Feed Mill Co. ....
Northwest Brewers Yeast, Inc.
Nutrena Mills, Inc. 72

Oakes Mfg. Co. .....
Olavarria & Co., Inc. .....
Olson Mill & Elevator .....
Omega Machine Co., Div. of B-I-F Industries, Inc. ...
Oyster Shell Corp. 80
Oyster Shell Prod. Corp. 44

Pabst Brewing Co. 31
Pacific Processing Corp. ....
Panogen, Inc. .....
Paper-Calmenson & Co. 11
Park, Phillip R., Inc. 74
Parks, J. D., Co. .....
Parrish & Heimbecker .....
Parrish, N. K. .....
Paxton Processing Co., Inc... 83
Pay Way Feed Mills, Inc. 40
Peavey, F. H., & Co. 81
Peerless Equip. Co., Inc. 45
Penick, S. B., & Co. 20
Pfizer, Chas., & Co. 46, 47
Phelps Dodge Refining Corp..
Pillsbury Mills, Inc. .....
Pittsburgh Plate Glass Co. .. 53
Pless & Sheahan .....
Prater Pulverizer Co. 83
Pratt Bros. Co. 87
Pratt Labs., Inc. 63
Premier Peat Moss Corp. ....
Productive Acres Mfg. Co... 21
Progress Products Co., Inc...
Publicker Industries, Inc. 75

Quaker Oats Co. .....

Ralston Purina Co. 51
Rapids Machinery Co. 33
Raymond Bag Corporation ..
Read, Gladwin A., Co. 14
Red River Alfalfa Co. .....
Red Star Yeast & Prod. Co... 33
Regniers, Emile, Co. (U.S.A.), Inc. .....
Reliance Feed Co. 71
Rhinehart Co. .....
Rhodia, Inc. .....
Richardson, James, & Sons..
Richardson Scale Co. .....
Riley Feed Co. 70
Rion Crush Stone Corp. .....
River Rest Turkey Sales, Inc.. 49
Rohloff Bros., Inc. .....
Roskamp Huller Mfg. Co., Inc.
Rosner-Hixson Laboratories ..
Ross Machine & Mill Supply .. 78
Ryde & Co. .....

Safety Industries, Inc. .....
St. Regis Paper Co. 24
Salsbury's, Dr., Labs. 38, 39
Save-Way Feed Mills 21
Scanlan, Ivan, & Co. .....
Schenley Distillers, Inc. 16
Schroeder Sales Co. .....
Schuster-Wise Gr. & Feed Co.
Schutte Pulverizer Co., Inc...
Scroggins Grain Co. 50
Seagram, Joseph E., & Sons, Inc. .....
Seco, Inc. 48
Sedberry, J. B., Inc. 81
Seedburo Equipment Co. 68
Sheahan, Robert F. .....
Shellbuilder Co. 57
Shell Chemical Co. .....
Shuford, J. C., Co. 54
Sievert, C. W., & Associates 24
Simonsen Mfg. Co. 59
Sioux Products Co. .....
Small, The W. J., Co. .....
Smith, Edward E., & Co. ....
Soft Phosphate Research Inst. 7
Southwest Mill Supply Co. .. 83
Sparks-Waters,Farmen, Inc. ...
Special Products, Inc. .....
Specifide, Inc. .....
Spencer Kellogg & Sons, Inc..
Sprout, Waldron & Co., Inc.. 26
Squibb, E. R., & Sons .....
Stabilized Vitamins, Inc. .....
Staley, A. E., Mfg. Co. 59
Staley Milling Co. .....
Standard Brands, Inc...20, 24, 50
Standard Feed & Fert., Inc...
Stauffer Chemical Co. 66
Stephens-Adamson Mfg. Co...
Sterwin Chemicals, Inc. .....
Stone Mountain Grit Co. ..28, 29
Strong-Scott Mfg. Co. .....
Sunset Feed & Grain Co. ...
Superior Feed Co. .....
Swanson, Carroll, Sales Co...
Swift & Co. .....
Syntha Lab. .....

T. D. F. Company .....
Tamms Industries .....
Taste Engineering, Inc. 72
Texas Mill Equipment Co.... 16
Thayer Scale & Eng. Corp...
Thomar Equipment Co. .....
Thompson Printing Co. .....
Ti-Co Industries .....
Tobias Enterprises 58
Toxite Laboratories .....
Truck Grain Blower Co. 80

Ultra-Life Laboratories, Inc... 80
Union Bag-Camp Paper Corp. 57
Union Special Machine Co. ..
U. S. Industrial Chem. Co.... 27
Universal Hoist Co. .....
Upjohn Company, The .....

Van Duser Harrington Co. .. 81
Vantress, Chas., Farms, Inc... 17
Van Waters & Rogers, Inc...
Vineland Laboratories, Inc. ..
Vitamins, Inc. 49
Vita-Vex, Inc. .....
Vitron Corp. .....
Vy Lactos Laboratories, Inc... 71

W-W Grinder Corporation .. 62
Wallace & Tiernan Inc. .....
Walsh Grain Co. .....
Warren-Douglas Chemical Co. 40
Weller, B. I., Co. .....
Wells, Ralph, & Co. .....
Wenger Mixer Mfg. Co. 30
Wertz Feed Co. 53
Western Condensing Co. 73
Western Yeast Co. 16
White Laboratories, Inc. 5
White Shell Corp. .....
Whitmoyer Laboratories, Inc... 75
Wilhoit Laboratory 56
Wilson & Co., Inc. .....
Wilson, R. S., Co. 69
Wirthmore Feeds 9
Wisconsin Alumni Research Foundation 33
Woodward & Dickerson, Inc... 81

Young, John F., Co. .....
Younglove Construction Co...

Zellers' Laboratories .....

Here, in the words of Successful Feed Dealers, are a few of the reasons why:

It pays to be a Dannen Dealer!

"RESALE"

"There's no sales tool in the world that can beat Resale Work when it's properly done. And those Dannen Territory Men really do know how to help out with resale! I think that's the one feature of the Dannen Merchandising Service that I appreciate more than anything else!"

Forrest Stine
Stine Feeder's Supply
Edna, Kansas

"DANNAN DEPENDABILITY"

"You can always count on service and high quality feeds when you're doing business with Dannen. My customers like a feed they can count on—and Dannen has sold them on quality and dependability. That's why my feed tonnage has constantly gone up!"

Ardell Moore
Moore's Feed and Supply
Carthage, Missouri

"SALES TRAINING SCHOOL"

"I like the entire Dannen Merchandising Program, but I believe the thing that has helped our business most is the Dannen Sales Training School. One of my employees who formerly worked in the warehouse became a key man in our sales department after attending the two-day Sales Training Class Conducted at the Dannen Research Farm."

Eldo Stucky
Stucky Feeder's Supply
2011 N. Mosley, Wichita, Kansas

DANNEN

DEALERSHIPS AVAILABLE
Write today for complete information

Here's How Dannen Helps You Sell:

● Concentrated Farm Resale ● Feeder Meetings ● Sales Training School for Dannen Dealers and their Employees ● Extensive Newspaper and Farm Paper Advertising ● Strong Radio Coverage ● Local Newspaper Advertising ● Live Displays ● 247-Acre Research Farm ● Dealer Meetings ● Premium Promotions ● Product Control Department ● Feeder Finance Programs ● Effective Point-of-Sale Material ● Outdoor Signs ● Special Promotion for New Dealers.

DANNEN MILLS, INC. ST. JOSEPH, MISSOURI